

THE
MEDICAL NEWS AND ABSTRACT.

VOL. XXXVIII. No. 1.

JANUARY, 1880.

WHOLE No. 445.

(For List of Contents see pp. 63-4.)

CLINICS.

Clinical Lectures.

ON VALVULAR LESIONS OF THE HEART, CONSIDERED IN
RELATION TO PROGNOSIS AND TREATMENT.

A CLINICAL LECTURE DELIVERED AT THE BELLEVUE HOSPITAL, NEW YORK.

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GENTLEMEN: I shall introduce two patients having valvular lesions of the heart, and, after stating the important clinical facts which the cases illustrate, I shall ask your attention to some practical remarks on valvular lesions.

This man's name is Andrew R. He is 47 years of age, and he is a blacksmith. His family history is unimportant. Prior to his present illness he always had good health. He was a strong, robust man. He has never had syphilis, nor rheumatism, nor any important pulmonary disease. He has been a moderate drinker. Six years ago he began to suffer, at times, from dizziness and palpitation. Coincident with these symptoms he passed blood with the urine. From that time to this, he has had repeatedly recurring attacks of hæmaturia, the amount of hemorrhage being sometimes considerable, and attended with obstruction to the free passage of urine. The attacks have been of short duration, and, in the intervals, he has been free from any urinary difficulty. The last attack was three weeks ago, just before his admission into hospital. He has an anæmic facies, and there is some œdema of the lower limbs and face. The apex beat of the heart is feeble, and felt in the fifth intercostal space just within the *linea mammalis*. There is a mitral systolic murmur, not transmitted much to the left of the apex. A systolic murmur is heard at the base, and the same murmur is heard over the carotids. There is also a feeble aortic regurgitant murmur. The aortic second sound is not weak, but the pulmonic second sound has greater intensity. The area of præcordial dulness on percussion is slightly increased.

I shall not consider the pathological significance of the hæmaturia in this case, except to say that it is true hæmaturia and not hæmatinuria, for the

blood coagulates after its emission; that the long period since the first attack occurred renders the existence of malignant disease improbable, and that examinations of the urine now give no evidence of disease of either the bladder or the kidneys. I will add that one of my surgical colleagues, who has explored the bladder, is led to suspect papilloma within that organ. The hemorrhages have doubtless contributed to the anæmic.

I desire to call attention especially to the heart. We have the evidence of valvular lesions, both mitral and aortic. Moreover, there is some cardiac enlargement. Now what has the heart to do with the dropsy and the general condition of this patient? Very little, if anything. It would be a mistake to treat the patient as if the cardiac affection were the objective point, and prescribe digitalis, which, by the way, I apprehend is too often prescribed, as a matter of course, if there be any disease of the heart. It would be a mistake to give diuretics or hydrogogues to get rid of the dropsy, which is not enough to occasion any inconvenience. The desirable end is the building up of the patient. He needs good alimentation, digestion, assimilation, and nutrition. If we can succeed in giving to this patient good blood and improving his general health, I venture to predict that, for the present at least, his cardiac lesions will give him little or no trouble.

The name of the other patient is Mary A. C. She is 45 years of age. She is married, and has two healthy children. Her parents are both dead, but she does not know of what diseases they died.

Fifteen years ago she had acute articular rheumatism, and she had another attack six months ago. Since the last attack she has suffered from dyspnoea, with cough, some pain in the præcordial region, and a sense of constriction in the chest. Her appearance is anæmic. She suffers from dyspnoea on any exertion, and is sometimes obliged to get up at night. The apex-beat of the heart is in the sixth intercostal space two inches without the *linea mammalis*. The præcordial dulness is considerably extended, and increased in degree. The impulse of the heart is weak. At the apex there is a presystolic together with a systolic murmur, the latter transmitted into the axillary region and heard on the back. There is also a systolic murmur at the base, and this is heard over the carotids. The pulmonic is notably louder than the aortic second sound.

We have in this case mitral and aortic valvular lesions with considerable enlargement of the heart. General dropsy is wanting; but the patient has grave and, of course, incurable cardiac disease. Now, aside from this disease, she is anæmic and feeble. Perhaps her general condition can be improved by tonic remedies, good alimentation, etc. If this can be done, she may suffer comparatively little from the cardiac disease. The important object of treatment in this case is to improve to the utmost the general condition, in order thereby to secure the best possible tolerance of a disease which must necessarily continue.

Taking these two cases as a text, I shall devote the remainder of this lecture to some considerations relating to the diagnosis and treatment of valvular lesions.

The recognition of valvular lesions and their localization at one or more of the valves or orifices of the heart, have been brought to such precision by the study of the cardiac murmurs, as apparently to leave nothing to be desired further in these points of view. Important as are the advantages

of this precision of physical diagnosis, it has not been without some disadvantages in relation to prognosis and treatment. Let me point out certain evils which may proceed from an accurate knowledge of the existence and seat of valvular lesions.

Nearly twenty years ago I was consulted by a physician from one of the Southern States. He had recently graduated in Philadelphia. Before leaving Philadelphia, he was led to ask the late Dr. Gerhard to examine his chest, some of his relatives having died with phthisis. Dr. Gerhard pronounced his chest free from any signs of pulmonary disease, but told him that he had a heart-murmur. Prior to this time, he had never had any symptoms pointing to cardiac trouble. The idea of the murmur worried him, and directed his attention to the heart. Some time afterward he was conscious of a little disturbance of the heart's action, and he went to Philadelphia for another physical examination. He was then examined by the late Dr. Pepper, who told him that there was a murmur, but no other evidence of any affection of the heart. He was comforted by Dr. Pepper's assurances, but was unable to dispel altogether his apprehensions. Under these circumstances he requested me to examine the heart. I found a systolic murmur within a limited area at the apex. The heart was not enlarged. Its action was regular. The pulmonic and aortic valvular sounds were normal. I assured him that there was no present occasion for anxiety, and advised him to try to forget that he had a cardiac murmur. He adopted my advice. He has ever since been engaged actively in medical practice. No symptoms of disease of the heart have occurred. During the last summer he called upon me, and I examined the heart. I failed to discover any murmur, and in all respects the organ was normal.

I cite this case as a striking one, among a considerable number of analogous cases, teaching the same lesson. The lesson is, that a cardiac murmur undoubtedly organic, that is, not hæmic nor extra cardiac, may represent a lesion which, for the nonce, is innocuous, and may never become otherwise. Now, what evil consequences may follow the discovery of such a murmur? A patient is told that there is the evidence of something wrong in the heart. In common parlance, he has "heart disease." In the popular mind this means always something grave, and is generally considered as involving more or less danger of sudden death. Let it be supposed that the physician enjoins extreme care in regard to physical exercise and mental excitement, advising perhaps the relinquishment of the pursuit in which the patient is engaged; impressing the importance of complete inactivity. It can easily be imagined how much anxiety is produced, and that the duties and aims of life may be sacrificed to needless precautions. These consequences are not imaginary; they have been exemplified in not a few instances which have fallen under my observation. In the instances referred to, it would have been better for the patients had a stethoscope never been applied to the chest. So great in some instances have been the evils following the discovery of an organic murmur, that ignorance of its existence would have been comparatively blissful.

How are such evils to be avoided? By acting in accordance with the following wholesome medical maxims: Positive, proximate evils are not to be incurred in view of remote, doubtful contingencies. A patient is always entitled to a prognosis as encouraging as is consistent with the most hopeful aspect of the case. I will endeavour to illustrate the appli-

cation of these maxims by a hypothetical case. A physician examines the chest of a patient who has no symptoms of cardiac disease; following the rule that the examination should always enter into a thorough investigation of a case, or, perhaps, because the patient wishes to be assured that he is sound, a cardiac murmur is recognized, and the conclusion is reached that it is not an inorganic murmur. The organ is not enlarged. The impulse and the characters of the first sound show that its muscular power is normal. The aortic and the pulmonic second sound have a proper relative intensity. Under these circumstances, the murmur represents a lesion of some kind, it is true, but one which, for the time being is innocuous. The lesion may, or may not, at a future time, lead to hypertrophy and dilatation. These results, if they ensue, will probably give no manifestations until after the lapse of many years. Acting in accordance with the maxims just stated, the physician need not volunteer any statement respecting the murmur. If the question whether there be anything wrong be asked, a truthful answer must, of course, be given; but the statement should be accompanied by such explanations and assurances as will preclude the idea of the existence of any important disease, or the expectation of its development in the future. The patient is to be spared apprehensions which, of course, are gratuitous if the lesion remains permanently innocuous. Moreover, if hypertrophy and dilatation follow, at a period more or less remote, apprehensions will not prevent these results, and may even tend to promote them. And, in this connection, let me state a fact, already implied, which underlies the prognosis and treatment whenever the existence of valvular lesions is ascertained: The remote pathological results proceed, not directly from the valvular lesions, but from the hypertrophy and dilatation which they induce, and chiefly from the latter of these two varieties of enlargement of the heart.

In the case which I sketched of the physician, a mitral systolic murmur represented an innocuous lesion. The murmur in that case was not a regurgitant murmur, although systolic. Here is an important distinction which may often be made clinically. A systolic murmur, having its maximum of intensity near the apex, propagated a greater or less distance in a lateral direction to the left, and heard on the back near the lower angle of the scapula, is evidence of mitral insufficiency. But, if limited to a space at the apex, it has not that significance; it may be due to an intra-ventricular lesion, the competency of the valve not being impaired, and, consequently, no regurgital current taking place. My colleague, Prof. Janeway, has demonstrated that a small tendinous cord attached to opposite points of the inner walls of the left ventricle—a congenital abnormality—may cause an intra-ventricular systolic murmur. But a truly regurgitant mitral murmur does not necessarily represent a lesion of present importance. An insufficiency so small as to allow a regurgitant stream no larger than a knitting needle, may give rise to a murmur, loud, propagated to the left, and heard on the back. Such a lesion occasions no appreciable disturbance, and it may never increase. Practically it is, and may remain indefinitely, innocuous. And here let me remark that a practical precept is never to draw any inference concerning the amount of lesion from the intensity of a murmur. It is perhaps true, as a rule, that the smaller the amount of regurgitation, the louder the regurgitant murmur.

What is true of mitral lesions is equally true of those seated at the other orifices. An aortic direct murmur which, from its persistence and other

circumstances, is not of hæmic origin, whether feeble or intense, may represent only a patch of atheroma or calcification causing no pathological effects, and remaining innocuous indefinitely. A little insufficiency of the aortic valve may have no greater importance than that of a mitral lesion causing a small regurgitant current. That an aortic regurgitant murmur may persist many years without enlargement of the heart, and giving rise to no appreciable cardiac symptoms, I know from cases which have been for a long time under my observation. As much can be said sometimes of a mitral direct or obstructive murmur; but I shall presently speak of the remarkable tolerance of the lesions giving rise to this murmur.

The practical points which I wish to make are these: Valvular lesions represented by murmurs, if there be no enlargement of the heart, are not of immediate pathological importance, and they may never become important. If the knowledge of their existence can be properly withheld from patients, it had better not be communicated. By no means terrorize them with the idea that they are doomed to die of "heart disease." Do not enjoin any radical changes in life, provided their habits are not inconsistent with hygienic laws. Above all, forbear any efforts to remove the lesions by mercury, the iodide of potassium, or other remedies. This last injunction may seem to many superfluous; yet it has happened that within a few days I have received a letter from a medical practitioner, detailing a case of a valvular murmur with no enlargement, the object of the letter being to inquire as to the propriety of other treatment than by large doses of the iodide of potassium which the patient was taking. In short, reverting to the maxims which I have laid down, avoid destroying the happiness and usefulness of a life in view of possible remote contingencies; allow all the benefit of a prognosis based on the fact that an innocuous lesion may remain so indefinitely, and may never become otherwise.

I proceed next to offer remarks on valvular lesions which have led to more or less enlargement of the heart. Errors in relation to prognosis and treatment may arise, in the first place, from attributing cardiac symptoms dependent on a functional affection associated with, but not dependent on, lesions, wholly to the latter; in the second place, from a deficient appreciation of other morbid conditions in accidental association, to which are measurably due the supposed effects of the cardiac lesions; and, in the third place, from an under estimate of the ability to tolerate these lesions.

It happens not infrequently that a patient with valvular lesions and more or less enlargement, who experiences little or no inconvenience therefrom, becomes affected with functional disorder from the same causes which produce it when the heart is sound, namely, dyspepsia, anæmia, the abuse of tobacco, excesses in venery, and prolonged mental worry. The functional disorder is independent of the organic affections, although, doubtless, more distressing in proportion as the heart is damaged by the latter. Now the palpitations, irregularity of rhythm, and intermissions, in some cases so excessive as to render significant Bouillaud's expression, *folie de cœur*, may be attributed wholly to the organic affections; hence, an exaggerated estimate of the importance or gravity of these. The physician may be taken by surprise, and astonished by the disappearance of symptoms which seemed to be alarming, and an apparent recovery of the

patient. Many years ago I saw in consultation a young man who had unmistakably a valvular lesion, and there was such an amount of disturbance of the heart's action that a most unfavourable prognosis was given. Some months afterward the attending physician sent him to report to me. He considered himself well, and was actively engaged in some mechanical employment. He had a lesion which gave him no inconvenience, and the symptoms on which were based the unfavourable prognosis were functional, not dependent on the organic affection. I am free to say that I could cite other analogous instances of error in prognosis from my own experience.

If valvular lesions be associated with little or no enlargement, coexisting disturbances of the heart's action are to be considered as functional, and especially if the causative agencies of the latter be discoverable. But when the associated enlargement is considerable, it is by no means always easy to determine to what extent the cardiac symptoms are due to a functional disorder which is independent of the organic affections. This point is often only to be settled by the removal of existing causes of functional disorder, and appropriate treatment in other respects. A large clinical experience is of much use in forming a judgment on this point, before it is settled by time. As bearing thereon, the persistence and the effects of a purely functional disorder, that is, not associated with any lesion, in some cases, are to be considered. The following is a sketch of a striking illustration which came under my observation about two years ago. The patient, a lady in the neighborhood of forty years of age, had long suffered from dyspeptic ailments, and frequently recurring attacks of functional disorder of the heart. At the time to which I refer, the organ was in a state of persistent palpitation for several successive weeks. The pulse was thready, and extremely frequent, often exceeding 150 per minute. She became anasarcaous, and the face had the pallor of death. It was difficult to realize that she was not in danger of dying at any moment. Yet, repeated examinations prior to this attack had shown that there was no enlargement, and there were no signs of valvular lesion. At length the functional disorder ceased, and she has since had comfortable health, although suffering at times from dyspepsia and paroxysms of palpitation.

By morbid conditions, other than functional disorder of the heart, accidentally associated with cardiac lesions, which are liable to give rise to error in diagnosis and treatment, I do not mean complicating affections as, for example, Bright's disease. The conditions especially referred to are impoverished blood, impaired nutrition, and general debility. A patient with obstructive or regurgitant lesions, or both combined, and the heart more or less hypertrophied, may scarcely be aware of any cardiac affection so long as alimentation is abundant, the digestion good, assimilation unaffected, the body well nourished, the nervous system undisturbed, and the muscular strength well maintained. Now, let it be supposed that this patient, from loss of appetite or any cause, ingests an insufficient supply of food; or that the digestive functions are impaired; or that either the assimilatory or digestive processes are defective; or that nervous prostration is induced by overwork or other causes; or that the muscular system is exhausted. Under these circumstances, singly or combined, distressing symptoms or effects of the cardiac affection are manifested. Dyspnoea and general dropsy, if the seat of the lesions be mitral, and præcordial oppression if the seat be aortic, are more or less

marked. The error in prognosis is the belief that these symptoms and effects represent purely and simply the cardiac lesions, whereas they are measurably caused by co-operating morbid conditions accidentally associated therewith. The error in treatment is in directing measures exclusively to the heart. If the associated morbid conditions can be removed, the patient is restored to the comfortable state which existed prior to their occurrence. The object of treatment is the removal of these conditions.

Illustrations of the point which I am endeavouring to make clear, are frequent both in private and in hospital practice, more especially the latter. Over and over again I have presented in this amphitheatre, patients suffering from dyspnoea and general dropsy, and ventured to predict that, by appropriate treatment addressed not directly to the heart, but to associated morbid conditions, so much improvement might be hoped for that it would seem as if recovery from the cardiac affection had taken place. I could cite numerous cases in which this prediction was fulfilled. The grounds for such a prognosis are the existence of some, or perhaps all, of the conditions which have been named, and the degree of hypertrophic enlargement of the heart not being sufficient alone to account for the symptoms and effects.

I cannot leave this topic without commending it to your thoughtful consideration. Its importance as bearing on prognosis and treatment in cases of valvular lesions with enlargement of the heart, is very great.

Errors, in relation to prognosis and treatment, arising from an underestimate of the tolerance of cardiac lesions, are common, as a consequence of limited clinical experience. Giving preference to my own errors over those of others, I will cite the following illustration: A family to which, nearly thirty years ago, I stood in the relation of physician, consisted of a husband, a wife, and three daughters. All were healthy except one daughter, about fourteen years of age, who was attending school, and appeared less robust than her sisters, without being considered an invalid. On making an examination of her chest I was surprised to find a loud mitral regurgitant murmur, and considerable hypertrophic enlargement of the heart. Disease of the heart had not been suspected prior to this examination. I felt it my duty to tell the parents that they must not expect her to reach maturity, and that, probably, at farthest, she would live but a few years. Fortunately, perhaps, for her, they attached not much importance to my communication. She continued to go to school, and no restrictions of any kind were placed upon her. This girl developed into a delicate-looking woman, but with comfortable health, dying, with the usual symptoms of mitral lesions and dilatation of the heart, about twenty years after the date of my examination, surviving her father, mother, and one of her sisters. The error in this case was not in the diagnosis, but in the prognosis.

If valvular lesions with enlargement be unaccompanied by associated unfavourable morbid conditions, they are often well tolerated for a long period. To promote tolerance, the object of treatment is to maintain a maximum of general health. It is a great mistake to impoverish the blood, impair nutrition, and induce general debility by a restricted diet, and to enjoin complete mental and physical inactivity. A diet abundant and nutritious is a *sine qua non*. Restrictions should be determined only by the digestive capabilities. Muscular exercise, within a certain limit, is

advisable from its influence on appetite, digestion, and nutrition. The proper limit is easily defined. It should not be so active as to occasion discomfort from either the action of the heart or dyspnoea. It should not be continued so as to produce exhaustion. Mental occupation, within the bounds of comfortable endurance, is useful as a hygienic measure, and as a preventive against introspection and brooding. It is, perhaps, not incorrect to say that practical errors in relation to the foregoing points in the treatment are not rare.

The situation and the character of valvular lesions are to be taken into account in prognosis and treatment. Aortic lesions which allow free regurgitation are the most doubtful in the way of prognosis. These lesions especially involve the liability to sudden death. They interfere with the nutrition of the left ventricle, inasmuch as the passage of blood into the coronary arteries takes place in the diastole, being effected by the recoil of the arterial coats; and the blood enters into these arteries with a force lessened in proportion as the aortic valves are insufficient. The danger of sudden death is greater without, than with, mitral insufficiency. The latter is to a certain extent protective against accumulation of blood in the left ventricle, and paralysis from distension. Weakness of the left ventricle from dilatation augments greatly the danger. These are points to be considered in the prognosis. As regards treatment, the object is to maintain the hypertrophy and muscular vigor of the left ventricle. Digitalis, given to the extent of diminishing the frequency of the heart's action, or, in other words, lengthening the pause after the two sounds, may increase the danger from over-filling of the ventricle.

Aortic obstruction is well tolerated. It is surprising how contracted the aortic orifice sometimes becomes before death takes place. This is better borne with, than without, mitral insufficiency. Regurgitation into the left auricle is compensatory and conservative.

Mitral regurgitant lesions, which are the most frequent in occurrence, may be tolerated indefinitely under favorable accompanying conditions. The case which I last cited exemplifies this statement.

Of mitral obstructive lesions I will speak at somewhat greater length. The murmur which represents these, namely, the mitral obstructive, or direct, or presystolic, has been recognized only within a few years. It was formerly confounded with the mitral regurgitant murmur, and is still by some who have given more or less attention to auscultation as applied to diseases of the heart. Not one of the cardiac murmurs is more readily recognized than this, when its distinctive characters are clearly apprehended. No other murmur occurs after the 2d sound and before the 1st sound, ending with the latter. Moreover, generally it has a peculiar vibratory or blubbery character, and it is limited to a circumscribed space around the apex of the heart.

This murmur represents mitral obstructive lesions, with an important exception, namely, when there is free aortic obstruction. I may claim priority in pointing out this exception, and in offering an adequate explanation of it. For the latter, I must refer you to my work on "Auscultation and Percussion," or my works on "Practical" and "Clinical Medicine." I may state here that this murmur is by no means so rare as I supposed when my clinical experience was more limited than at the present time. And it occurs oftener without mitral regurgitation than I formerly supposed. I have lately observed an interesting fact in regard to this murmur, namely, it may disappear after mitral obstruction has led to great

dilatation of the left auricle. Under these circumstances, at different times, it may be present and absent. Its disappearance, of course, is of unfavourable omen, preceding or accompanying increase of dyspnoea and of general dropsy. When I first studied this murmur, I had the impression that it very rarely existed without a coexisting mitral regurgitant murmur. Experience has shown me that this impression was erroneous. In the majority of cases mitral obstruction is combined with mitral insufficiency, but the instances of the former without the latter are not infrequent.

Mitral obstruction, as represented by the presystolic murmur, may be tolerated indefinitely, and is not incompatible with comfortable health. Of a pretty large number of cases sustaining this statement, I will refer to a few.

Twelve years ago I saw a woman a few days after her confinement. She had orthopnoea, cyanosis, much anasarca, and a large dropsical effusion into both pleural cavities. There was a mitral direct murmur, with moderate enlargement of the heart. The physician who attended her in labor said the dyspnoea was such as to lead him to fear that she would die before the birth of her child. She was promptly relieved by the free operation of elaterium. She apparently regained good health. Meanwhile, I have seen her once, in consultation, with a moderate general dropsy. This was several years since, and I have lately heard of her as in comfortable health.

I have notes of two cases, both women, who were under my observation for more than ten years. In both the mitral obstruction did not interfere with comfortable health. In one case death at length took place, preceded by much suffering from dyspnoea and by general dropsy. In the other case, while the patient continued to suffer but little, and was accustomed to much activity, death was caused by gangrene of both lower limbs, probably due to embolism.

In another case which has been under my observation for ten years, the patient suffers but little inconvenience from symptoms referable to the heart, although the general health has been much impaired at times by malarial fever and by menorrhagia. In this case the mitral direct is associated with an aortic regurgitant murmur. During the ten years, very little, if any, enlargement of the heart has taken place.

I will next offer some remarks on the treatment in cases of mitral lesions (obstructive or regurgitant, or both combined) associated with dilatation of the heart, sufficient, exclusive of accessory morbid conditions, to give rise to dyspnoea, orthopnoea, and to general dropsy. Every practitioner of much experience is familiar with cases in which the patient is unable to lie down on account of distress from the sense of the want of breath, getting a certain amount of disturbed sleep by bending the body forward, raising the arms, and resting the head upon some support. There is anasarca, and the lower limbs, together with the scrotum and penis, become enormously swollen. There is more or less effusion within the peritoneal cavity and both pleural cavities. The suffering for days, weeks, and months, in this pitiable condition, is extreme. Death seldom comes in a shape more terrible than this. What can be done to diminish suffering and prolong life under these circumstances?

Efficient measures of treatment will often do much. The effect of active hydragogue purgation is sometimes marvellous. Physicians are often unduly timid in resorting to potential hydragogues for fear of ex-

haustion. The elimination of water by the intestinal canal, so far from exhausting the patient, gives increased strength by relieving the dropsy and the suffering from dyspnoea, thereby enabling the patient to have refreshing sleep. Elaterium, the king of hydragogues, may be judiciously given without apprehension. Podophyllin is a royal remedy, but less potent than elaterium. Of the inferior grade of hydragogues, the pulvis purgans should hold a high rank; but in my experience it has often proved unreliable, as I suspect from the poor quality of jalap dispensed by apothecaries. The Epsom salts is an old remedy which has fallen in a measure into unmerited disuse. It is easily administered, generally well borne and reliable. After relief has been procured by active hydragogue purgation, either a moderate drain from the bowels may be kept up, or the active purgation repeated once a week or fortnight, as circumstances may indicate. In the intervals, a diet as substantial as practicable, and tonic remedies, if indicated, are important, adopting the excellent maxim that "a lame heart needs good blood."

In the cases to which I now refer, digitalis is often an invaluable remedy. This remedy is indicated by weakness, rapidity and irregularity of the heart's action. I agree with those who regard this remedy as a cardiac tonic rather than a cardiac sedative. Its potency is sometimes extraordinary. It should be given for a short time, and then suspended, to be resumed, from time to time, according to the indications.

Pursuing the plan of treatment just outlined, I believe that I cannot be mistaken in the opinion that I have seen much mitigation of suffering and prolongation of life.

I will conclude this lecture by summarizing in a few aphorisms the practical points which I have presented.

1. Cardiac murmurs may represent lesions which, if unaccompanied by symptoms referable thereto, enlargement of the heart not coexisting, and the heart-sounds normal, are to be considered as innocuous. The prediction of grave consequences, under these circumstances, is unwarrantable, inasmuch as they may never occur. Such lesions do not claim medical treatment, nor any extraordinary precautions; and it is desirable that the fact of their existence be withheld from patients, if this can be done with propriety.

2. Patients with valvular lesions are liable to suffer from functional disorders of the heart, arising from causes which have no pathological connection with the lesions. It is highly important to recognize, clinically, this accidental coincidence, in order to exercise a correct judgment as to the prognosis and treatment.

3. Various morbid conditions, other than functional disorder of the heart, may be accidentally associated with valvular lesions and more or less cardiac enlargement. These associated morbid conditions may be, in a great measure, responsible for symptoms and effects which seem to denote an advanced stage of the cardiac disease, whereas, the latter may occasion but little inconvenience, provided these accessory, co-operating conditions can be removed.

4. Valvular lesions involving either obstruction or regurgitation, or both combined, and having led to considerable or even great enlargement of the heart, under favorable circumstances as regards associated morbid conditions, are often well tolerated indefinitely. There is less reason for a hopeful prognosis, in respect of tolerance, when there is considerable

aortic insufficiency, than in cases of aortic obstructive lesions, and those which occasion obstruction or regurgitation at the mitral orifice. The danger of sudden death from aortic regurgitation is lessened by coexisting mitral insufficiency.

5. In cases of orthopnoea and general dropsy dependent on mitral obstructive or regurgitant lesions and enlargement of the heart, digitalis and active hydrogogue purgation repeated from time to time, not only often afford notable relief, but there is reason to believe that life is sometimes thereby much prolonged.

ON THE THERAPEUTICS OF ACUTE RHEUMATISM.

A CLINICAL LECTURE DELIVERED AT THE JEFFERSON COLLEGE HOSPITAL.

By ROBERTS BARTHOLOW, M.D.,

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GENTLEMEN: In no disease is the influence of fashion in therapeutics more conspicuous than in the treatment of acute rheumatism. Now it is a therapeutical nihilism, as the "mint-water method" at Guy's Hospital; again it is the application of blisters to the affected joints; now it is the alkaline treatment; again it is salicylic acid. Whatever it may be, the remedy has almost universal sway for a time, until supplanted by some other fashion. I need hardly say that we should not abandon an old and well-tried remedy for a new one, simply because it is new; but the new one should be distinctly better. It may be useful then, in view of the cases which have been before us, to examine into this subject of the therapeutics of acute rheumatism, and come to some conclusions, if we can, in regard to the relative merits of the various remedies which have occupied professional attention for several years past.

First of all, gentlemen, I cannot too strongly insist on this fundamental fact, that no single remedy can be rightly applied to every case of acute rheumatism. In this disease, notwithstanding it pursues a pretty uniform plan, there are wide differences in origin, in the type of individual cases, and in the constitutional state and bodily condition of patients—all of which must have due recognition if we would employ our therapeutical expedients wisely. Let me illustrate: Rheumatism seems sometimes to be of distinctly nervous origin. We now know that certain changes in the spinal cord, and injuries of nerves, are followed by joint inflammations similar to those of acute rheumatism. Again, the circulation of some organic acid in the blood has seemed to excite rheumatic inflammation; at least we know that the sweat and the urine are very acid, that endocarditis has been excited by injecting lactic acid into the peritoneal cavity of animals, and that rheumatic attacks have been induced by the administration of lactic acid for diabetes.

Furthermore, the most superficial inspection of the cases which have been shown must have satisfied you that there are three classes of subjects who are attacked by rheumatism: the cachectic, feeble, and nervous; the obese, florid but flabby, drinkers of malt liquors; the vigorous and able-bodied, who have inherited or acquired a rheumatismal diathesis.

These forms and types are so distinct that he who fails to take heed of

them cannot properly adapt his means to the end in view, and must pursue merely routine methods.

We are greatly aided now in our attempts to arrive at just conclusions respecting the therapeutical value of our remedies for rheumatism by the exact knowledge we possess of the natural history of this disease. Thanks to the "mint-water treatment" of Guy's Hospital, we know that rheumatism has a tendency to get well about the fourteenth day, and again but more decidedly about the twenty-first day, but that it usually continues on to the sixth week and does not really cease earlier, as I think Dr. Fuller conclusively shows. The traditional "six weeks and blankets," under the spoliative treatment formerly employed, seems to be about the natural limit of rheumatism, and hence, if under our remedies the duration of the disease is distinctly less, they have exerted a curative influence. It is very apparent, therefore, that we have several remedies which possess curative value in this disease, for under their use the duration of it is materially abbreviated.

Taking up for consideration, first, the type of feeble, anæmic, nervous subject—what method shall we pursue? If I were governed merely by the fashion of the time I would direct salicylic acid or salicin—an undeniably efficient remedy in many cases. But in this class of subjects it does not succeed well; they are much depressed by it, and have a tedious convalescence with a strong tendency to relapses. In these cases I decidedly prefer the tincture of the chloride of iron, in half-drachm doses, well diluted with water. We owe chiefly to Dr. Russell Reynolds the important fact that the tincture of iron is an efficient remedy in acute rheumatism. It cuts short the duration of the disease, and what is even more important, lessens the danger of cardiac complications. Dr. Anstie pointed out another fact—that the tincture of iron has the power of prophylaxis—of preventing attacks that are impending. Whether it acts by virtue of its acid or its iron is not known, but it is probably the former. Dr. Ridge has shown that the mineral acids are decidedly curative in acute rheumatism. Alkalies are curative in rheumatism! mineral acids are curative in rheumatism! What strange contradiction is this? After all, gentlemen, this opposition of agents is more apparent than real. It is not difficult to conceive that whilst alkalies neutralize the acid of rheumatism, the mineral acids may prevent its formation. We may, therefore, assume that the virtues of the chloride of iron are due to its acid; but we should not obtain the same good results from chlorhydric acid, for iron aids in the restoration of the blood, and is useful for this reason.

I direct, as I have already indicated, and as you have witnessed, thirty minims of the tincture well diluted with water, every four hours. The affected joints are wrapped in cotton if the patient desire it, but otherwise are simply kept at rest, and if the pain is severe, some small blisters are applied around the joint, but not on it. I have treated many cases with the iron alone, and with iron aided by moderate doses of alkalies and blisters. The best results have been obtained in these weak and anæmic subjects by the iron and blisters, and an occasional laxative of Rochelle salt. The treatment by blisters alone is a highly efficient plan, and is by no means so painful and disagreeable as it appears at first sight. The blisters remarkably relieve the pain, and patients soon learn this and ask for their repetition. But the blisters do more—they bring about a more alkaline condition of the blood, and render the urine less acid or bring it to neutral, or even to alkaline. I do not, as the French physician (Dr.

Dechilly) who proposed the method, apply large blisters over the whole of the affected joints, but as Dr. Davies, of the London Hospital, who introduced the method into England, apply smaller blisters to encompass the joints. To be more explicit: I have small blisters, the size of a silver dollar, placed around the joint, leaving an interval between for succeeding applications.

In these weak subjects a few blisters are applied, and the joint is supported at rest, but the tincture of iron is the chief remedy. Managed in this way, the duration of the cases rarely exceeds two weeks; heart complications are infrequent, and the patient's strength is conserved so that convalescence is rapid and relapses uncommon.

The cases of the second class require different management. They are the fat and flabby subjects, often excessive consumers of malt liquors, who suffer habitually with acid indigestion and the usual concomitants of this state. Such subjects present a delusive appearance of good health, but they have a weak circulation, are easily put out of breath, tire on the least exertion, and often suffer from lumbago, myalgia, and other so-called rheumatic troubles. When attacked with acute rheumatism, they are very apt to have endo- or exo-cardial complications. These cases are most successfully treated by the alkaline plan. In, I believe, almost the last paper written by the late Dr. Fuller, which was in opposition to Drs. Gull and Sutton's "mint-water treatment," he insisted strongly on certain points in regard to the use of alkalies, inattention to which had been the cause of failure in the treatment. He says we must give not less than an ounce and a half of the alkaline carbonates, either alone or in combination with a vegetable acid, during the first twenty-four hours of the treatment. This may be prescribed as a drink—a lemonade—by adding lemon juice or citric acid to the solution of the carbonates—two drachms of the carbonates, an ounce of lemon juice, or half a drachm of citric acid dissolved in four ounces of water, and taken every three or four hours. If the bowels are constipated, he gives compound cathartic pills at bedtime. As soon as the urine, when passed, ceases to exhibit an acid reaction, he reduces the alkali one-half. This reduction of the daily quantity of alkali goes on each day, until the fourth or fifth day, when, if the urine continues to be alkaline, he prescribes bark preparations or quinia, at the same time continuing the alkalies in moderate quantity. If treated on this plan, the class of cases under consideration get well within two weeks, and are often up in a week. Instead of giving the quinia in the small doses of three grains advised by Dr. Fuller, the results are much better if twice that quantity is given every four hours. In these cases, instead of quinia I usually give, after the alkali course, the tincture of iron; and if the attack is a severe one, apply blisters about the principal joints.

The third group of cases consists of vigorous subjects having, in a considerable proportion of them, an inherited tendency. According to my experience, cases of this type are adapted to the action of salicylic acid, and are often relieved with remarkable promptitude by means of it. Salicin is probably nearly as effective, but it must needs be given in such quantity as to be difficult to manage. Scruple doses of salicylic acid seem to be sufficient for most cases of rheumatism, provided they are often enough repeated. The patient should receive not less than two drachms every twenty-four hours, and considerably more may be required. I have found that salicylic acid is more effective if given in solution or contemporaneously with an excess of alkali, than if administered in powder by

itself. If kept for a few hours in solution with sodium bicarbonate in excess, the solution becomes brownish or greenish-brown, and emits an odour of wintergreen. Take it all in all, the most satisfactory procedure is to give wafers containing the salicylic acid, and alternate with an effervescing draught of an alkaline carbonate—the officinal effervescing powder answers the purpose. The amount of relief given by this remedy in many cases, is amazing, and in a few hours, a cure being effected not unfrequently in three or four days. When good is being accomplished by it, the evidence is quickly afforded in relief to pain and decline of temperature. If, therefore, after several days—three or four—persistent and efficient administration of salicylic acid, the signs of improvement are wanting, it is probable that nothing will be accomplished by its continued use. If the stomach will not bear it, or if the considerable doses necessary depress the action of the heart, or cause great irregularity in the pulsations, it must be discontinued.

Notwithstanding the importance of these remedies or methods of treatment, there are accessories scarcely inferior in the influence which they exert over the progress of the case. The diet must be carefully regulated. Solid food of any kind seems to be hurtful, and there is usually great repugnance to it. Milk, and beef, mutton, or chicken broth, are the chief components of the diet. Large draughts of milk are useful by maintaining free action of the kidneys. Coffee and tea may be allowed, but wine, beer, and spirits are highly injurious.

Shall any attention be given to the joints? Experience does not justify the local treatment of the rheumatic inflammation. The curative effects of blisters are not due to the notion at one time entertained, of the withdrawal of a morbid material from the affected parts, or to the counter-irritant action, but to their systemic effects in increasing the alkalinity of the blood, and lessening the acidity of the urine, and their power to relieve pain. Wrapping the joints in cotton is comforting to the patient, but it is questionable practice, as the heat is retained, and the temperature of the joints kept above that of the neighbouring parts. The application of alkaline lotions, at one time much used, owing to the theoretical notions then entertained, is now rarely employed. Painting with iodine tincture, does not influence the course of the case in any way. To maintain immobility of the affected joints, is a measure of the highest utility. Motion increases the pain and swelling, which react in turn on the systemic state, and conversely, an absolutely quiescent state of the joints, diminishes pain, and lessens fever. To secure the necessary quietude has been attempted by mechanical means—by starch or plaster bandages; but there are many joints so situated that this method, if desirable, would be impracticable. In fact, the desired immobility can be secured only by moral and medicinal means. The necessity for quiet—for absolute quiet—should be impressed on the patient, but moral suasion must be aided by means to quiet pain and restlessness. It is the sedative influence of the bromides on the centres of conscious impressions, and on the reflex and motor centres, which gives them importance as remedies in acute rheumatism, and by some of our best authorities they are assigned the highest place.

Relief to pain and restlessness is best afforded by the agents which exert a curative influence, but if pain persists relief must be given in some other way—by anodynes. If the bromides are active enough to allay pain, to bring sleep, and to quiet the restlessness, they are to be preferred; but it

will generally be found, I think, that they do not possess sufficient anodyne power. Morphia or Dover's powder, are usually resorted to, but the relief which they afford is at the expense of a protracted convalescence. By checking elimination, opium retards improvement. There is an agent which happens to have a decided effect in relieving pain, whilst at the same time it promotes elimination; that is, atropia, which, for this purpose, was first used and recommended by Dr. Harley. It should be administered hypodermatically and in the neighborhood of the affected joints. The dose for each injection need rarely exceed the $\frac{3}{16}$ grain a day.

I have probably occupied sufficient time in giving this summary of the treatment of rheumatism, yet I ought to say something of important complications. It is by no means an unusual circumstance to have endo- or exo-cardial inflammations occur—in, probably, one-third of all the cases. To combat it, there are three remedies of chief value—morphia, ammonia, and digitalis. As soon as the fact of the cardiac complication having arisen is known, the carbonate of ammonia in solution of the acetate (5 grains to a tablespoonful), should be freely given, with the object of securing prompt solution of the fibrinous exudation or deposited fibrin. To check the inflammatory process, and lessen the work of the heart, morphia and digitalis are prescribed. The morphia is most efficient when administered hypodermatically, and the digitalis when in the form of infusion. As there is no therapeutical incompatibility, these agents may be given contemporaneously. When the acute symptoms subside, to relieve the immediate and prevent the ulterior bad effects of the inflammation, the tincture of iron and quinia should be given freely, and the heart should be kept steady by digitalis. The extent to which restoration of these injured parts, delicate in structure as they are, can be carried by rightly seconding the efforts of nature, is very surprising. Shall counter-irritants be used? Although we are told that a blister applied to the bony walls of the chest cannot affect the condition of organs within, yet experience is in favor of the practice, and the patient's subjective sensation of relief is more valuable testimony than the deductions of theory. Neither need we be concerned about the blistering point, but put on one not over the præcordia, to interfere with auscultation, but on the side of the chest, in the subaxillary space.

There is a complication of rheumatism—fortunately very rare—in which, without any apparent cause, the temperature suddenly leaps up to 106°, 108°, even 109° Fahr. This state of *hyperpyrexia*, as it is called, is accompanied by delirium and by cardiac and respiratory disturbances. That the grave symptoms of hyperpyrexia are due to the high temperature, is now admitted on all sides, but no adequate explanation has thus far been given of the causes producing it. We only know that in some cases, hyperpyrexia comes on, and paralysis of brain and heart quickly ensues if the excess of heat cannot be removed. Until the value of the cold bath had been made known, there existed no means of diminishing the extraordinary heat, and these cases were always fatal. Now, however, the cold bath affords us the means of rescuing some cases from impending death. The method of the application is the same as for fevers, but if the bath is not available, the wet-pack is a resource which can always be utilized.

Hospital Notes.

Cases of Stone in the Bladder; Lithotripsy at one sitting; Remarks.

The following case which occurred at the Liverpool Royal Infirmary, under the care of Mr. REGINALD HARRISON, is noteworthy, chiefly because of the marked tendency to stone formation, the patient having previously been operated on twice by lithotomy and once by lithotripsy. It further illustrates the practice recently advocated by Dr. Henry J. Bigelow, of Boston, under the name of "litholapaxy." (See *American Journal of the Medical Sciences*, January, 1878, p. 117.)

J. A—, a shop-keeper, aged sixty-three, was admitted on April 22, 1879. Eight years before he suffered from symptoms of stone, for which he was cut, and a calculus was removed. Within a year he was again cut at another hospital, and two calculi were successfully removed. During the year previous to admission a stone was removed by lithotripsy, and at the commencement of the present year the old symptoms again returned. On admission he was suffering from frequent micturition, pain at the end of the penis, and occasional hæmaturia. The urine was purulent and deposited phosphates in abundance. On examining him under ether with a lithotrite, a round stone of about an inch in diameter was felt.

On April 25th, Mr. Harrison broke up the stone, which was phosphatic, and evacuated the débris after the manner practised by Professor Bigelow. The symptoms were at once relieved, and the cystitis from which the patient had so long suffered gradually abated under treatment. Though the calculus was most completely broken up, there were no signs of hemorrhage, either during the time of operation or afterwards. He left the infirmary on May 15, 1879, passing urine normally, and free from all signs of calculus.

After so extended an experience of stone and its treatment as this patient had undergone, it is not only interesting but proper to record his observation, "That the new plan was the easiest way he had had of getting rid of a stone."

In commenting upon this case Mr. Harrison said that it was another illustration in his own experience of the great value of litholapaxy in suitable cases. The object of this operation was to do away entirely with those ill effects which are produced by the retention and passing with urine of broken pieces of calculi, which by their angles inflict injury on the mucous membrane of the urinary passages with which they come in contact.—*Lancet*, Oct. 25, 1879.

In the same journal Mr. TEEVAN reports the case of a gentleman aged eighty-eight years, who many years previously passed two calculi, and who for a long time had occasionally suffered from pain in the loins, and had passed gravel. One year ago the gravel ceased to appear, now and then he saw a little blood in his urine, and he began to be troubled with frequent micturition, and dull aching pain in the perineum, which latterly increased, and his urine became thick and offensive. For the past three months he had been confined to his bed, got but little sleep, and was excitable and unmanageable.

On examination a hard stone was found in the bladder. As the urine gave no evidence of renal disease, an operation by Bigelow's method was determined upon. In twenty minutes an excessively hard lithic acid stone, measuring one inch and a quarter by one inch, was pulverized and evacuated. The patient's progress after the operation was one of gradual improvement. The highest temperature recorded was 101° on the second day. The urine began to clear on the fifth, and on the eleventh he left his bed, to which he had been confined for three months, and five days later he drove out. Three weeks after the operation he was free from pain and cheerful. He could hold his urine for four hours, and got a good night's rest. The urine was clear and there was no phosphatic deposit.

MONTHLY ABSTRACT.

Anatomy and Physiology.

Congenital Abnormal Development of the Extremities.

Herr WITTELSHÖFER has published a *résumé* of 46 cases of abnormal development of the extremities; two of these cases have come under his own personal observation. One of these two cases is that of a girl aged 14, who, from her birth, had presented an abnormal development of the third and fourth fingers of her left hand. Both fingers were united, and had reached such a size that it was found necessary to extirpate them. The length of the whole mass was 17 centimetres, its largest circumference 29 centimetres. The secretion of sweat was remarkably strong on the affected parts; the patient herself was very fat. The second case is that of a sickly boy, aged 11, whose lower left foot was hypertrophic, especially the third, fourth, and fifth toes, which formed a tumour of 38 centimetres circumference. This monstrosity occurs more frequently in the upper limbs (31 cases) than in the lower (22 cases); the right half of the body seems also to be more frequently affected than the left. The third finger or toe appears to be more liable to become hypertrophic than the other fingers or toes, but in most cases the neighbouring members become also affected. In 13 cases, the disease had remained restricted to one finger or toe alone; in 23 cases, to two; in 11 cases, to three. In 1 single case, the fifth toe had also become hypertrophic. In 3 cases, both hands were affected; in 1 case, both feet; in 2 cases, both extremities on the same side; in 1 case, the left upper and right lower extremity were hypertrophic. The disease never attacked more than two extremities of the same individual. Both extremities were not always symmetrically affected. It has been proved by careful measurement that in all cases of macrodactylia the whole extremity is enlarged. This affection appears to be congenital, but not hereditary. It is a curious fact that this affection is very frequently combined with syndactylia and abnormal development of the adipose tissue.—*London Med. Record*, Oct. 15, 1879.

Case of Double Vagina and Cervix Uteri.

Dr. WM. R. D. BLACKWOOD, of Philadelphia, reports (*Phila. Med. Times*, Oct. 25, 1879) a case of a virgin with double vagina and cervix. Each vagina was moderately capacious and presented no abnormal features. The cervix on the right side presented at an angle of about ten degrees, bending towards the right, and that of the left side made an angle of probably twenty degrees, pointing towards the left. Each cervix was normal in shape, size, and general characteristics, both canals patulous to the sound, but only so far as the os internum, beyond which, passage at this time was impossible with any justifiable force. Conjoined manipulation by both the rectal and abdominal parietes showed the uterus to be single, with double cervix. The body of the uterus was of the usual size, and was freely movable and not sensitive to pressure. The right cervical canal was subsequently dilated, and the sound passed to the fundus, the depth being two and a half inches; the left cervix was likewise dilated, and the sound measured two and three-quarter inches, the extra distance being attributable to

the lengthening of the cervix. The uterus was found to be divided into two cavities by a complete vesical septum.

In the examination of the case the fact was elicited that the pain which accompanied menstruation was referred to the left side and was intensified at every second menstrual period. At the time of examination the period in progress was one in which the pain was not increased during the flow. On very careful speculum examination it became apparent that the flow was entirely confined to the right side of the uterus. The next day the examination was repeated, with precisely the same result, and, as the flow was much less abundant, the difficulty of keeping the parts clean was not so great as before. Similar results were obtained on the next day, the last of the period.

On the appearance of the catamenia at the next period the examination with the speculum was renewed. *The flow was now from the left cervix alone.* As before, care was had to exclude possible error, and during the three days ensuing the only difference observable was that the amount of discharge was less than had been observed from the right side, and some little pain was present during the first twenty-four hours. The present month has been the thirteenth since the inquiries began, and in these thirteen periods the regular alternation has been maintained, with a single exception—that in August, when the flow should have been *right-sided*, it was from the *left*, as in the month before.

Contributions to the Anatomy and Surgery of the Accessory Thyroid Gland.

MADELUNG has published (Langenbeck's *Arch. f. Klin. Chir.*, vol. xxiv. Heft 1, p. 71-107) a very able paper on accessory thyroid glands. The conclusions he has arrived at are as follows: Accessory glands are due to some fetal malformation or abnormality. Analogies are frequently with the spleen, liver, prostatic gland, the ovaries, the pituitary gland, etc., where accessory glands are often found. He proposes to classify the accessory thyroid glands in five principal groups, according to the position they occupy with reference to the principal gland, viz., *glandulae thyroideae accessoriae, superiores, inferiores, laterales, anticae et posticae*. The vessels which belong to these glands are for the greater part branches from the thyroid vessels; in very few cases they have been traced back to the crico-thyroid vessels. The structure of the accessory glands closely resembles that of the principal gland; they are mostly round or oval, though they may also be flat or bent like a hook, or have long slender processes. They vary in size from a pea to a French bean; the biggest have been found among the gland. *thyr. access. superiores*. The malformation is not hereditary, though it seems as if some nationalities had a greater tendency to it. They are found more frequently in women than in men, and on the right side of the thyroid gland than on the left, and are often mistaken for lymphoid glands. They are very apt to degenerate into cysts, but strumous degeneration is, on the whole, of rare occurrence. The diagnosis of the latter form of this affection is difficult. The following are the principal symptoms: It begins to develop about the age of puberty, on the right side of the throat in a female individual. It is very apt to change its place and become movable. In cases of retro-oesophageal strumata, the superior thyroid arteries form extensive anastomoses. There are also many local symptoms of pressure on the respiratory tract. The patients often suffer much, especially if the posterior or lateral accessory thyroid glands are affected. In some cases death has been caused by the compression of the oesophagus, the respiratory tracts, the impossibility of swallowing, etc., strictures of the trachea, and softening of the cartilages of the trachea and the larynx. The treatment recommended by the author consists in extirpation of the glands,

or injections of iodine into the tissues. He has a very high opinion of the latter, and suggests that in cases where the accessory glands are situated between the œsophagus and the spinal column, the injections should take place from the pharynx. In cases of extreme danger, tracheotomy would be indicated. The growth may be extirpated either from the mouth, as Busch and Kocher have frequently done, or by making a long cut along the rectus capitis anterior, after the method adopted by Braum and Kocher.—*London Medical Record*, Oct. 15, 1879.

Materia Medica and Therapeutics.

Salicylate of Iron.

Dr. WALLS WHITE (*Glasgow Medical Journal*, Aug. 1879) prepares the salicylate of iron by dissolving together sulphate of iron twenty-four grains, salicylate of soda thirty grains, and acetate of soda twenty grains, in an ounce of water. The solution has at first a pale port-wine appearance, which darkens on exposure to the air: it has a pleasant taste, and each ounce contains thirty grains of salicylate of iron. Its primary action seems to be to promote secretion, stimulating the skin. It does not constipate the bowels, but rather corrects the alvine secretions. As a prophylactic against septicæmia after surgical operations it is valuable. For diphtheria and the aphthous condition of the tongue in children, in solutions containing 4–10 grains to the ounce, combined with glycerin, or with chlorate of potash, or both, it can be used with freedom as a mouth wash, and as a medicine. In erysipelas it may be given in doses of a tablespoonful, alone or combined with diaphoretics. It promotes perspiration, cleans the tongue, lowers the temperature, and reduces the pulse. It may be administered with freedom and in large quantities in cases of anæmia, without interfering with digestion. In skin diseases also, and in desquamative nephritis where the digestive organs have become weakened, and a salt of iron is indicated, its powers are very marked. Salicylate of iron seems to combine the astringent powers of the iron, but in a minor degree to the sulphate or perchloride, with the antiseptic, antipyretic powers of the salicylic acid. If the preparation is long continued, some of it passes out unchanged with the urine.—*Practitioner*, Oct. 1879.

Relative Action of Duboisia and Atropia.

Dr. SYDNEY RINGER contributes a short article on this subject to the *Practitioner* (Oct. 1879), from which we extract the following:—

Since Mr. Tweedy first brought Duboisia myoporoides to the attention of the profession in England, the alkaloid has been largely used as a topical application to the eye, in a solution corresponding to the officinal preparation of sulphate of atropia, namely, one grain in 120 minims. This application has caused many unpleasant symptoms. In one case under my care the duboisia caused much weakness, depression, and giddiness; he felt as if he were drunk. Another patient said it causes "great discomfort in my stomach, and a feeling as if a huge lump was in my throat. My power of distinguishing one article of food from another by the taste is taken away." In this patient it also caused great giddiness.

These accounts led me to test, with the assistance of Mr. W. H. Neale, the relative action of sulphate of atropia and sulphate of duboisia.

We first administered by the mouth a dose of sulphate of duboisia, and carefully

noted the symptoms, and we then, on a subsequent day, gave a corresponding dose of sulphate of atropia. On one occasion we gave two doses of $\frac{1}{16}$ grain of sulphate of atropia at an interval of two hours. On five occasions we gave $\frac{1}{16}$ grain.

Duboisia, we find, produces identically the same symptoms as atropia, but is far more powerful than atropia.

After duboisia, the symptoms begin in about half an hour, and reach their height in about two hours. The earliest symptom is dryness of the mouth. After $\frac{1}{16}$ grain, there occurred great dryness of the mouth; dilatation of the pupils; much giddiness, almost preventing walking, and increased by exercise; slight drowsiness and rambling; great weakness, so that the limbs felt heavy and were raised obviously with considerable difficulty, with so much difficulty, indeed, that the woman could scarcely feed herself, and her grasp was very weak. It produced flushing of the face, and on one occasion patchy erythematous redness, the skin at these places being rather swollen and hard. The pulse became much fuller and rather slower. These symptoms lasted about seven to eight hours.

The same dose of sulphate of atropia only produced slight subjective dryness of the mouth. After the administration of $\frac{1}{8}$ grain in two doses, with two hours interval, we observed the same symptoms for the most part. The man became very drowsy and delirious; his delirium was of the busy kind, he incessantly tried to pick up imaginary things from the floor. He had also decided twitchings of his limbs, and his pulse rose from 84 to 120, and his respiration from 18 to 30 per minute. The symptoms left him in about ten hours. The $\frac{1}{8}$ grain of atropia, on a subsequent day, only caused subjective dryness of his mouth.

These observations confirm my previous observations, published in the *Lancet* for 1878 (See *American Journal of the Medical Sciences*, April, 1878, p. 526). I then found that duboisia, in addition to the symptoms above detailed, causes headache, checks perspiration, antagonizes the action of muscarin on the heart, and produces late tetanus in frogs—effects it possesses in common with atropia.

Duboisia, then, possesses the same properties as atropia, but is far more powerful than atropia. Mr. Tweedy found this to be the case in regard to the local application to the eye. But whilst duboisia is far more powerful than atropia on man, the reverse is the case in respect to frogs. Atropia paralyzes far more powerfully the motor nervous system, the heart, and respirations, in frogs, than duboisia.

[For a careful study of the physiological and toxic effects of duboisia the reader is referred to a paper by Dr. Wm. F. Norris, in the *American Journal of the Medical Sciences*, April, 1879, p. 446.]

Therapeutic Uses of Iodoform.

E. KURZ (*Memorabilien*, August 15) says that he has used iodoform ointment with good result in cases of orchitis, strumous swellings, lymphadenitis, lymphangitis, periphlebitis, and exfoliations in the pelvis. In a recent case of indurated chancre, an ointment of one part of iodoform to ten of glycerine ointment produced a cure in a few days; secondary symptoms, however, appeared afterwards. In another case, a large soft chancre with bacony base and ragged edges on the inner part of the prepuce, was cleansed in a few days by the application of a similar ointment once daily; and the sore was completely healed in a fortnight. A patient with spinal myelitis had for several years suffered from prurigo of the arms and thighs, with moist eczema of the legs. Inunctions of the iodoform ointment produced marked improvement of the prurigo in the course of the week; but the eczema became worse. This was relieved, but not quite cured, by the use of boracic acid ointment. A scrofulous boy, with enlarged cervical glands, was treated by iodoform locally and cod-liver oil internally. After some weeks, no

trace of the glands could be felt. In a communication to the *Allegemeine Medicinische Central-Zeitung* of September 13th, Dr. Lindermann states that he has found that the balsam of Peru is capable of completely masking the disagreeable odour of iodoform. The addition of two parts of the balsam to one of iodoform is sufficient; but a greater quantity of the former may be used. The best vehicles for ointment are lard, glycerine ointment, and especially vaseline; and for liniment, glycerine, spirit, and collodion. Dr. Lindermann gives the following formulæ. *R* Iodoformii partem j; balsami Peruviani partes ij; vaselini, seu adipis suillæ, seu unguenti glycerini, partes, viij. Fiat unguentum. *R* Iodoformii partem j; balsami Peruviani partem iij; spiritus vini rectificati, seu glycerini, seu collodii, partes xij. Misce. In making these preparations, the iodoform and balsam should be first rubbed together, and the other ingredients then added. Dr. Lindermann calls attention to the fact that the application of balsam of Peru has been recommended by Dr. Caspari and others in various cutaneous diseases and ulcerative processes.—*Brit. Med. Journ.*, Sept. 27, 1879.

The Action and Uses of Hyoscyamia.

Mr. ENGLEDDUE PRIDEAUX, Assistant Medical Officer at the Friends' Retreat, near York, in concluding an elaborate paper on this subject (*Lancet*, Oct. 11, 1879) presents the following as a summary of the results of the use of hyoscyamia in a considerable number of cases in his hospital, and in the cases reported by others, in regard to its advantages and disadvantages in the treatment of the various diseases of insanity.

1. That in most cases of mania, or where there exists great excitement of an aggressive and destructive character or rapidity of movement and speech, the use of the drug is the most effectual and rapid means of exercising that form of restraint which has been termed "chemical restraint."

2. That in cases of acute mania it will produce sleep and quietude when all other drugs have failed, and is one of the most rapid and reliable narcotics we possess.

3. That in the treatment of the epileptic status in epileptic mania it diminishes the number, frequency, and severity of the attacks, especially if its administration be extended over some time.

4. That in delusional insanity, especially the mania of suspicion and other forms of mania where the delusions are varying and changeable, it has a decided action in producing such an altered condition of the cerebral status that a condition which has been termed "physiological mania" results, and this so eclipses the former delusions and hallucinations that they are forgotten and the mind becomes clear; while, if the subjection to the influence of the drug be continued, it ultimately leads, under favourable circumstances, to a permanent condition of quiescence and restoration to a healthy state of mind.

5. That in chronic dementia, associated with destructive tendencies, bad habits, and sleeplessness, the condition of the patient much improves after a continued course of small doses of the drug.

The disadvantages that have occurred in its use, and which have to be guarded against, are: The dryness of the tongue and pharynx that occurs, especially after a prolonged administration. This has been thought to contra-indicate its use in cases of artificial feeding, but provided the tube be dipped into an oily liquid before passing I have not found it any inconvenience. The attacks of vomiting that have occurred in some cases, after an administration of some weeks, necessarily lead to a discontinuance of the drug. Vomiting occasionally occurs after one dose, even a small one, and in two cases, mentioned by Dr. Lawson, hema-

temesis took place. Where rapid and sudden action of the drug is feared in feeble cases, it is better to administer it with the food.

Therapeutic Uses of Benzoate of Soda.

Buchholtz discovered that the benzoate of soda possesses in a high degree the power of preventing the development of bacteria in putrescible fluids. Brown found that a previous hypodermic injection of the drug will prevent, to a certain extent, the development of diphtheria from inoculation in an animal. Dr. Schüller, of Greifswald, used it as an antiseptic dressing, but did not find that it possessed any advantages over carbolic or salicylic acid. Given internally, however, he found it very beneficial in several cases of extensive phlegmonous processes in the hand and forearm, and of erysipelas, and in one case of diphtheritic inflammation of the bladder. In all of these cases the fever disappeared entirely, and the local symptoms improved, after from 10 to 20 grammes had been taken. The effect was particularly striking in a case of violent traumatic erysipelas with chill and high fever, in which 25 grammes were taken within 24 hours. The fever began to sink after a few doses had been administered. The remedy also proved useful in some cases of scrofulous articular affections with simultaneous catarrh of the pulmonary apices and persistent hectic. Schüller's formula of administration was: benzoate of soda, 10 grammes; syrup, 20 grammes; water, 200 grammes (3ijss.—3v.—3vjss.). Dose, a tablespoonful four or five times daily, when its use was continued for a long time, and every hour in acute febrile affections.

Prof. Klebs believes that the drug is absorbed very slowly by the intestines when fever is present, and hence recommends its direct injection into the blood. Experimentally it seems to be demonstrated that immense quantities can be injected into the blood without danger; as much as 5 grammes would have to be injected in the case of a man of ordinary size, to prevent the development of bacteria in the blood. The only danger to be feared would be paralysis of the heart, an effect which would be due to the soda rather than to the benzoic acid. Klebs suggests that this danger might be avoided by the use of the less soluble *benzoate of magnesia*. This salt may also be given internally in powder or pills in place of the benzoate of soda, when the latter causes nausea. The *benzoate of lithia* is said to be more soluble than the magnesia salt, and like it to have no action on the pneumogastric.

Letzerich gave the benzoate of soda in eight cases of severe diphtheria in children, and states that no other remedy has produced in his hands such rapid and lasting effects. The temperature usually fell in from 24 to 36 hours. Only one of the patients died—a badly nourished child, who had just recovered from an attack of croup. Besides the internal administration of the drug, it was employed locally by insufflation or gargles. Hoffman, of Berlin, treated 12 cases of diphtheria with the drug; all of them recovered. He believes that the medicine essentially shortened the course of the disease. On the other hand, Widerhofer, of Vienna, treated 17 cases of diphtheria in children with the benzoate of soda, and lost eight of the patients. He does not regard it as a reliable remedy in this disease.

Letzerich also recommends the benzoate of soda in gastric catarrh, particularly in infants, and in this he is seconded by Kapuscinski, of Posen, who administered it in 63 cases of gastro-intestinal catarrh in children under five years of age, with the most striking results. The vomiting was controlled very rapidly, but the drug had no power over the diarrhoea, which yielded, however, to bismuth and soda after the vomiting ceased. He gave one or two teaspoonfuls of a 5 per

cent. solution of the salt every two hours. Finally the benzoate of soda has been given with good effects in two cases of morbus Brightii, one of which had already presented uræmic symptoms. Five grammes of the salt were given three times a day, and under this treatment the albumen in the urine rapidly diminished, and soon only traces of it were left.—*Med. Record*, Oct. 18, 1879, from *Allg. med. Cent.-Zeit.*, July 16, 1879.

Unusual Effect of a Hypodermic Injection of Morphia.

Dr. AUG. M. TUPPER, of Rockport, Mass., reports (*Boston Med. and Surg. Journal*, Oct. 30, 1879) the case of a healthy-looking man, aged about 30, who was suffering severely from lumbago; counter-irritants having failed to afford relief, he injected directly over the seat of pain nine drops of a solution of sulphate of morphia, one grain to a drachm of water with one drop of carbolic acid to keep it. In five minutes the patient was relieved. In about five minutes later he complained of nausea, before a basin could be given to him he grew deadly pale, his eyes rolled up, so that only the whites were visible, jaws were clenched, head drawn back, the whole body stiffened, respiration ceased, and the pulse at the wrist was absent. Cold water was instantly dashed in his face. In about a minute his eyes were observed to be widely open and staring, and the pupils widely dilated. Very soon the colour began to return to his face, he was drenched with perspiration, and recovered consciousness. His pulse was now sixty, full, but irregular.

Dr. Tupper has given the same mixture a great many times without the slightest trouble. The solution was freshly prepared the morning it was used and the same dose had been on the same day injected under the skin of a neuralgic female before using it on the patient whose case is above narrated. The injection entirely relieved the lumbago.

This and similar cases which have been reported from time to time show that in patients whose tolerance to the hypodermic use of morphia is not known, it is not safe to begin with a larger dose than one-eighth of a grain.

Medicine.

Note on the Salicylate and Alkaline Treatment of Acute Rheumatism with an Analysis of One hundred and fifty-eight cases.

Dr. DAVID W. FINDLAY, Medical Registrar, and Mr. R. H. LUCAS, late Resident Medical Officer of Middlesex Hospital, compare (*Lancet*, Sept. 20, 1879) the results which have attended the use of salicylate of soda in the treatment of rheumatism with two other methods most commonly used in the wards of the Middlesex Hospital immediately prior to its introduction.

The salicylate of soda, they say, on account of its greater solubility, and for other reasons which need scarcely be mentioned here, has established its position as the favourite preparation; and our observations refer to it alone as representing the salicin group.

The conclusions which we have to offer for consideration now suffer necessarily from want of novelty, but they may not be uninteresting, as they corroborate in a marked manner many of the observations which have been previously made as to the results of the treatment in question.

In estimating the effect of any drug at the bedside, it is necessary, firstly, to

review a fairly large number of cases, and, in the second place, to take care that those cases are placed under similar conditions. The results we have to show are those of an analysis of 158 typical cases of acute rheumatism treated in the Middlesex Hospital—60 by salicylate of soda, 60 by the old alkaline method, and 38 by a combination of alkalies with quinine. All of these cases, with the exception of the drug administered, were treated in a precisely similar manner, and influenced by the same surroundings.

The following are the points to which we have directed our inquiry, with a comparison of the results of the different systems of treatment.

Pyrexia.—The average duration of pyrexia in the cases treated by the salicylate of soda was found to be 5.7 days. In the cases treated by alkalies alone it was 10.3 days; and in those in which quinine was combined with the alkaline treatment it was 11.6 days. It will thus be seen that the first-named drug exhibited a marked superiority over the others. With regard to the influence of the quinine in the last-named group, it is not easy to see how this should have been unfavourable. Probably the smaller number of cases may render the observation of doubtful value, and the drug itself was not given in what would now be considered anti-pyretic doses.

Joint affection.—The difference in result is no less, but rather more, marked under this head; for while the cases treated by the salicylate show an average of 5.06 days' duration, the averages for the treatment by alkalies, and by alkalies and quinine, respectively are 12.2 and 10.07.

Influence on the condition of the heart.—Looking to the power possessed by the salicylate of cutting short the pyrexia and joint affection, one would naturally expect that its influence would appear also in limiting the tendency to the occurrence of endocarditis and pericarditis. This, however, is not borne out by the results of our analysis. Of the cases treated by the salicylate 11.6 per cent. developed endo- or pericarditis under treatment, while the percentage in the case of the alkaline treatment was 6.6, and in the combined treatment 13.1. Too much stress must not be laid upon the comparison in regard to this point, for it must be borne in mind that nearly 70 per cent. of the cases in the first and second group, and over 50 per cent. of those in the third, have some heart complication developed before admission to the hospital, thus leaving a comparatively small number from which to draw any general conclusion. The great probability is that the influence of any method of treatment in averting the tendency to heart affection is very small indeed. It has been dogmatically asserted that pericarditis never supervenes after the system has been got thoroughly under the influence of the alkaline treatment; but this position is obviously untenable.

Relapse.—Hitherto there has been little but praise to bestow upon the salicylate treatment; but we now come upon unfavourable ground. In the cases treated by the salicylate there occurred relapses in 26.6 per cent.; in those treated by alkalies, and by alkalies and quinine, 8.3 and 7.8 per cent. respectively. The results here are very much against the salicylate treatment, and there is a universal concurrence of opinion on this point among all who have investigated the subject. It may be hoped that this undoubted tendency to relapse may be overcome after further experience, and to this end a gradual discontinuance of the use of the drug, together with a longer confinement to bed, and liquid diet, seem to hold out the most hopeful prospects.

Return of pain without pyrexia.—Here, too, the balance of evidence is rather against the salicylate; and it is only what we should expect, looking to the facts detailed in the previous section. Ten per cent. of the salicylate cases show return of pain, as against 6.6 per cent. of the alkaline and 18 per cent. of the alkaline and quinine combined. It should be remarked that the return of pain in the

salicylate cases has generally taken place after the use of the drug has been discontinued, and the pain has been quickly relieved by a return to the remedy.

Stay in the hospital.—With regard to the stay in the hospital, the alkaline treatment gives the most satisfactory results, the salicylate treatment next, and the combined alkaline and quinine the least favourable. So many disturbing elements, however, come in here in the way of complications, such as pleurisy, bronchitis, pneumonia, etc., that the value of the comparison on this head is but slight. Owing to the shorter duration of pyrexia and pain occurring in connection with the salicylate treatment, convalescence becomes established much sooner than when the other methods of treatment have been employed; and were it not for the dangers of relapse these cases might be discharged at a much earlier period. With the discovery of some modification in the plan of treatment which should obviate this risk, a notable improvement may be looked for here.

In conclusion, we would remark that cases occasionally occur which seem to be quite insusceptible to the action of salicin or its compound; while, on the other hand, a few so speedily show its toxic effects (such as giddiness, sickness, headache, and delirium) that its use has to be abandoned before it has had time to influence the rheumatism.

It should be noticed that the usual dose of salicylate of soda was fifteen grains every three hours; of the alkalies, fifteen grains of the bicarbonate of potash, with a like quantity of the acetate, every four or six hours; and of quinine, where this was regularly given, two to five grains in pill, thrice daily.

Spinal Hypertrophic Pachymeningitis.

Dr. BERGER reports several cases of this affection, one of which, that of a woman aged 45, presents features of peculiar interest, as the patient recovered after having suffered for years. After repeated severe chills she had felt violent sharp pains in the cervical vertebral column, and the left elbow and shoulder-joint. At the same time her neck became stiff, and the left arm grew very weak. The muscles of the thumb, the interossei, and the forearm became gradually very much atrophied. The right arm was less affected. The treatment consisted in galvanization of the spine and extremities, the administration of iodide of potassium, and in the production of suppuration of the spinal region. The patient recovered entirely and regained flesh. The author particularly draws attention to the usefulness of warm baths of several hours' duration in the first period of the disease. He has found them answer very well in a case of what seemed to be meningitis of the lumbar vertebra, after typhoid fever. Herr Berger points out that the diagnosis of hypertrophic spinal pachymeningitis can only be made with certainty when atrophy of the muscles has set in.—*Lond. Med. Record*, October 15, 1879.

Case of Hydrophobic Tetanus.

An interesting case of hydrophobic tetanus is reported by Dr. KIRCHHOFF (*Berl. Klin. Woch.*, No. 25, 1879). The patient, a woman aged 52, happened to fall with her face into some briars. Several of the thorns penetrated her face, but were immediately drawn out by another woman who happened to be with her. In the course of the week following the accident the patient's face was much swollen, then she found it impossible to open her mouth; both deglutition and respiration were much impaired. On the seventh day she fell into convulsions; on the eighth day the left facial nerve had become paralyzed. When first seen in the hospital she was in a half-sitting, half-crouching position, clutching at her lower lip, and trying to pull it down with both hands. A stream of saliva

ran out of the mouth, had macerated the epidermis of the finger tips and soaked her clothing. Respiration was frequent, the inspiration was not hindered, but every expiration was followed by a short groan, while at the same time a perfect shower of saliva came out of her mouth. Simultaneously her back became more arched, and the head and thorax were slightly turned to the right. The right eye was closed, the left only partially so, the right corner of the mouth was higher than the left, and was drawn towards the right. The pupils were alike and narrow; they reacted to light, and moved normally. On keeping the mouth forcibly open, inspiratory raising of the velum of the palate could be seen. In the left temporal region was a small abscess, which, on being touched, evoked strong tetanic convulsions of the thorax. At the same time the face was drawn more towards the right. The patient was put under chloroform, and an incision made in the wound, whereupon a thorn three centimetres long was extracted. The patient was offered some water to drink, at the mere sight of which she seemed to be filled with horror. It was impossible to make her swallow some with a spoon. The opisthotonos became worse, the head was distinctly drawn backwards. The extremities did not take part in the convulsions. The urine contained albumen. The faradic contractility of the muscles of the left side of the face had not been destroyed; it was, however, much weakened when the stimulus was applied to that portion of the facial nerve which runs out of the stylo-mastoid foramen. This proved that the paralysis was of peripheric origin. The patient was very cyanotic; her pulse was small and frequent. A systolic blowing murmur could be heard at the apex of the heart. The left trifacial nerve was not affected, as seen by pricking the patient's face with a needle, for the right half contracted with an evident expression of pain. The patient was treated with large doses of bromide of potassium and chloral hydrate. She died on the second day of her stay in the hospital. Two hours before her death the temperature was 101.2° ; ten minutes after death 104° in the vagina. It is noteworthy that the patient had never been bitten by a dog. At the *post-mortem* examination a cyst of the size of a pea was found in the left corpus striatum; below it was a small grayish focus. The pons and medulla were soft, and dotted with pink spots, but apparently normal. The spinal cord was in the same condition. On examining it with the microscope very numerous corpora amylacea were found in the brain and cord. The thoracic and abdominal viscera did not present any remarkable changes. The left facial nerve was microscopically examined, but no pathological alterations could be detected in it. Reflections: It was very difficult in this case to make correct diagnosis at once, as many of the symptoms, *e. g.*, the unilateral paralysis of the facial nerve, the impossibility to swallow, the convulsions and expression of terror at the sight of fluid, and the restlessness of the patient, seemed all to point more towards hydrophobia. At the same time the opisthotonos, the contraction of the abdominal and masseter muscles all betoken tetanus, as well as the convulsions which were synchronous with the expiration. It seems that Rose has been the only one to notice this peculiar form of tetanus. He has also given it the name of hydrophobic tetanus. Dr. Kirchhoff supposes that in this case the tetanus was owing to a pressure on, or injury of, the facial nerve, and that the tetanus was merely a reflex act.—*London Medical Record*, Oct. 15, 1879.

Reflexes in the Spinal Cord.

The following cases are reported by Dr. WEISS. A man, aged 26, had received a blow on the neck. This was immediately followed by paraplegia and anæsthesia of the lower extremities. The upper extremities had remained normal, with the exception of occasional tonic spasms of the flexor muscles. Reflex

irritability was extinct on the lower extremities, and the remaining anæsthetic parts of the body, and remained so till the patient's death, which ensued on the third day after the accident. The bladder and rectum were paralyzed. The *post-mortem* examination revealed a fracture of the sixth cervical vertebra, which had involved destruction of the cord at the corresponding place. The other case is that of a man, aged 36, who had fallen down unconscious after a leap. Both upper and lower extremities were paralyzed. Sensibility was extinct in the lower extremities, and the trunk up to the nipples, bladder and rectum, were paralyzed. The *post-mortem* examination showed that the ligament between the fifth and sixth cervical vertebrae had been divided; the vertebrae were dislocated, and the cord destroyed. This seems to prove that the reflex irritability of the cord decreases immediately after it has been separated from the brain, and that this condition lasts for some time.—*London Med. Record*, Oct 15, 1879.

Treatment of Chorea with Ether Spray.

Dr. MAREIGLIA describes (*Annali Clinico dello Ospedale incurabili*, anno iii. fasc. v.), in detail, four cases of chorea varying in severity as well as in cause. All had commenced with an alteration in the voluntary movement, after which disturbance of sleep and involuntary movements had appeared. In two cases these symptoms were accompanied by affections of the speech, whilst in one the movements were restricted to the right side, affecting only the facial muscles. In two cases, likewise, the cause was fright, in one a previous attack of meningitis, and in one rheumatism. The age of the patients varied from 7 to 14 years, and they were treated in every case with the ether spray as recommended by Lubelsky. The spray was directed along the whole length of the spine by means of a Richardson's apparatus for a breadth of 7 cm. The application was continued for 3-4 minutes, and was made twice, thrice, and even four times a day. With the exception of the second case, which had lasted for three months, the disease had not continued for more than fifty days. The treatment with ether was carried on for 17-30 days, except in this second case, where the disease was of more than two months' standing, in which it was continued for forty-five days. Dr. Mareiglia describes the result of this mode of treatment as being immediately successful. The symptoms were lessened on the first application of the ether spray, and there was a marked improvement within the week. In the first successful case there was no reddening of the skin which had been subjected to the ether spray, such as had been noticed by Jaccoud, but there was a marked paleness with the formation of "goose-skin."—*Practitioner*, Oct. 1879.

Hypodermic Injections of Fowler's Solution in Chorea.

Dr. L. PÉROUD, Professor of Diseases of Children to the Faculty of Medicine of Lyons, has employed hypodermic injections of arsenic in chorea since 1875. M. HENRI GARIN describes in his thesis (*Thèse de Lyon*, No. 14) results obtained in thirty-three cases of chorea in children at the Charité Hospital. In the method followed by M. Péroud, usually four or five drops of pure Fowler's solution are injected into the cellular tissue by means of a Pravaz's syringe. An injection is made every day; sometimes every second or third day. The region preferred for injection is some part where there is loose cellular tissue and few nervous filaments. It is sometimes preferable to inject at the level of muscles most affected. The cases related occurred in female children from the age of 4½ to 14½. Among them were recent, old, and relapsed cases; cases of rheumatic, of paralytic, and of cerebral chorea. M. Garin's reason for preferring subcutaneous injections are these: first, they do not give rise to gastric disturbance; second,

the curative effect is generally more rapidly obtained; third, only very small doses administered every two or three days, are needed. Subcutaneous injections cause little trouble in children; they give rise to no local irritation, although sometimes, when the organism has become saturated, slight induration occurs at the punctures. Sometimes intolerance of arsenic is met with; but this is rare, especially in children, who take it very well. Under the influence of hypodermic arsenical medication, rapid amelioration is the rule. At the same time that the chorea advances to cure, the children become fat, the weight of the body progressively increases, and the amount of solid matters excreted by the kidney diminishes. Under the influence of arsenical injections, sixteen cases of chorea ended in recovery after an average of thirty-two days' treatment and about eighteen hypodermic injections. In these sixteen cases the treatment was purely arsenical. Of thirteen other cases of chorea submitted to injections of arsenic and also to various other remedies, ten recovered; but a longer time was necessary. These thirteen were, moreover almost all old or relapsed cases. Hence it may be concluded that arsenic has more chances of cure in recent and simple cases than in old and inveterate cases. This is contrary to the assertions of Aran and Ziemssen.—*Brit. Med. Journ.*, Sept. 27, 1879.

On Stammering.

At the recent International Medical Congress held at Amsterdam, M. CHERVIN, of Paris, read a paper on stammering. This disturbance of speech is generally ascribed to a spasm of the muscular apparatus that aids in the articulation of sounds. This theory, which is essentially false, has led surgeons to perform many unfortunate and useless operations (section of the tongue or of certain of its muscles, of the hyoglossus; extirpation of the tonsils, the uvula, etc.). M. Chervin thinks that stammering is caused simply by a disturbance in the co-ordination of the movements that are necessary to emit an articulated sound. This explains how it is that this disturbance of speech is frequently of an intermittent type; and why, under the influence of a methodical treatment, which is in reality only a series of gymnastic exercises, that are practised by the apparatus which helps to form articulate sounds, it is possible to cure this affection in a very short time. The author has gathered from statistics that, from 1850 to 1869, 13,215 young men in France were exempted from serving in the army because of stammering. Great discretion must, however, be exercised in delivering certificates on the subject, as stammering is very easily counterfeited. In general, fright and emotion play a great part in the etiology of the affection. It occurs more frequently in the male sex than in the female, which the author attributes to the fact that young girls are less exposed to violent emotions. The treatment lasts about three weeks. During the first week, the patient has to go through methodical exercises of reading and recitation for a certain number of hours daily; for the remainder of the time, he must be perfectly silent and isolated from his friends. In the second week, he is allowed to speak to his attendants or friends, but must speak very slowly, and pronounce each syllable distinctly. In the third week, the patient may converse freely, but must still speak very slowly.—*British Med. Journal*, Sept. 27, 1879.

Treatment of Diphtheria by the local application of Bromide of Potassium.

At a late meeting of the Société de Thérapie (Gazette Hebdomadaire, Oct. 17, 1879) M. Dujardin-Beaumetz presented a paper in the name of Dr. PEYROT (of Libourne) on the treatment of diphtheria by direct local applications of bromide of potassium. This paper is based on 42 observations, in which the

results of this treatment were most satisfactory. M. Peyrot sometimes uses a solution of from 15 to 20 grammes of bromide of potassium dissolved in 100 grammes of water and in glycerine, sometimes a very fine powder of bromide of potassium, which he employs by insufflation; he has also used the solution in pulverization. The object he has in view is first to destroy the false membranes, and then facilitate the renewal of the mucous membrane.

M. DUJARDIN-BEAUMETZ added that bromide of potassium possesses caustic properties, less active, however, than those of chlorate of potassa.

Morphia in Asthma.

M. HENRI HUCHARD has published (*Le Progrès Médical*, July 5, 1879) an interesting series of investigations upon the eupnoëic action of morphia, more especially in regard to the rapid cure of asthmatic attacks by the employment of hypodermic injections of this drug. M. Huchard briefly narrates four cases which he has treated, and then proceeds to quote the favourable opinions of authors who have already made trial of morphia in dyspnoea. M. Huchard believes that opium is of use in certain cases of asthma to combat the spasmodic affection, and he even ventures to regard it as one of the chief remedies. It is readily understood how the bronchial spasm may be reduced by the rapid absorption of morphia, though the drug is less serviceable in bronchial catarrh, and is almost useless in emphysema. Morphia is not only a remedy in sudden attacks of asthma, with great orthopnoea and but little chronic pulmonary mischief, but it is also of use to alleviate in a very short time an old and organic state of the lung. Great benefit is derived from its employment in cardiac pseudasthma, in uræmic dyspnoea and in the last stage of phthisis. In every case the morphia seems to act by alleviating the cerebral anæmia, and the lesions of the medulla. It plays an important part in the therapeutics of heart disease, as has already been demonstrated by M. Huchard, who sums up his previous results in the statement that morphia is to aortic diseases what digitalis is to mitral affections. The morphia must be administered subcutaneously in dyspnoea, and the injections may be given without any fear of morphinism. M. Huchard believes that morphia causes respiration, and that this eupnoëic action is apart from its narcotic effect. In any case his results are readily verified in every-day practice.—*Practitioner*, Oct. 1879.

Tuberculosis in Infants.

From a consideration of nine cases of tuberculosis in infants from ten weeks to ten months of age, including seven fatal cases with necropsies, DR. ALOIS EPSTEIN (*Prager Vierteljahrsschrift*, Band 142), concludes that the presence of the disease in infants is in most cases due to infection with the milk of a tuberculous mother, and not to hereditary predisposition, as is usually supposed. Two of the children were the offspring of healthy mothers, but one was suckled by a phthisical wet-nurse. Seven were the children of phthisical mothers. In one of the cases, there were intestinal ulcers and cheesy infiltration of the mesenteric glands. The author remarks that the tuberculosis of infants and young children differs from that of adults in the great frequency with which the lymphatic glands, and especially the glands of the small intestines, are affected, and also in the comparative rarity of pulmonary disease in children. These facts appear to indicate that the starting-points of tuberculosis in children and in adults are different; and that, while in adults and older children it is breathed in, it is sucked in by infants and young children.—*British Med. Journal*, Oct. 18, 1879.

Hypophosphites in Phthisis.

Dr. COGHILL, in a critical review of the value of the hypophosphites of lime and soda, gives the results of this treatment in 100 indiscriminate cases where it was fairly tried in the Royal National Hospital at Ventnor. 57 improved, 17 remained in *statu quo*, 26 got worse, and 4 died. Of 328 patients otherwise treated, 240 improved, 39 remained in *statu quo*, 25 got worse, and 20 died. "It seems evident from these statistics that the hypophosphites have no claim whatever to the character or properties of a specific remedy in the developed stages of pulmonary consumption." "In only 25 per cent. of the cases could they be employed unaided, and these were cases in which change of climate, improved dietetic and hygienic conditions with general tonic treatment, would probably have shown good results. Great disappointment resulted from their impotency in checking such characteristic symptoms of the disease as night sweats, or influencing favourably the febrile conditions indicating advancing lung mischief. That, however, these salts have, when judiciously employed, valuable tonic properties, promoting the appetite, the digestion, and the assimilation, more especially of fatty food, was strongly impressed on all. They have certainly no specific influence (so far as I have been able to form an opinion, after the most careful and unbiassed observation) either in arresting, when in progress, or markedly promoting repair when stayed, the several forms of pulmonary phthisis, whether tubercular or pneumonic." Although by no means specific in the tubercular diathesis, still, Dr. Coghill highly values the hypophosphite of soda as a nervine tonic, and perhaps even as a tissue-builder.—*Lond. Med. Record*, October 15, 1879.

Relation between Heart Disease and Hysteria.

M. ARMAINGAUD (*Journ. de Méd. et de Chirurgie*, May, 1879) publishes two cases which appear to show that there is a relationship between cardiac lesion and hysteria in man, such as is already known to exist between heart disease and chorea. In one of these cases, a man, aged 28, suffered from mitral insufficiency accompanied by contraction of the aorta; he also experienced oppression, palpitations, and various phenomena indicating cerebral anæmia, with hysteric convulsions. For a month these attacks occurred two or three times a week. The treatment adopted by the author consisted in the hypodermic injection of morphia, to relieve the cerebral anæmia. The drug in doses of a centigram was at first given daily, but at a later period it was found that two injections a week were sufficient. By this means the convulsions were entirely removed, whilst the phenomena of cerebral anæmia so far disappeared as to allow the patient to resume his occupation.—*Practitioner*, Oct. 1879.

Henning on the Appearance of the Tongue in Disease.

(1) The *elongated and pointed* tongue invariably indicates irritation and determination of blood to the stomach and intestines. The extremities are often cold. It is also associated with excitation of the nerve centres. This tongue is often found, but more especially among children. The indications are to allay irritation and divert the blood from the stomach and bowels. We should be very careful how we make our prescription in such cases, as, if we give an irritant cathartic it invariably aggravates the disease. (2) The *pinched and shrunken* tongue indicates atony of the digestive organs, often found in dyspepsia and kindred diseases. The treatment is plain, the pathological conditions being evident at a glance, from the appearance of the tongue. (3) The coating

(*saburra*) or fur should be well studied. It may be greater or less in thickness, dry or moist, or clammy, more accumulated at the posterior portion. It is said that when the tongue is heavily coated at the base, with a deep yellow coat, the liver is at fault. This is not always the case; and, from my observation, more often not the case. I have seen cases of jaundice with a white-coated tongue. Tobacco chewers nearly always have a yellow-coated tongue, and their liver may be sound. (4) The *dry* tongue has a very important significance. When we have patients who are suffering from some form of fever, pneumonia, or any other acute disease, with such a tongue, they are in danger, and require close attention. In such cases nutrition and assimilation are suspended, and food cannot well be taken, and, if taken, cannot be properly assimilated. When given, it should be in fluid form, and always above the temperature of 100°, and of a character nutritive and digestible. The digestive organs can do but little work, yet proper food given at proper intervals does good; but these organs need all the rest they can get until the disease is subdued. Dryness of the tongue is also associated with vascular excitement, and particularly with excitation of the ganglionic and nerve centres. Hence the arrest of secretion and this dryness. Here we readily read the state of the *nervous system*. In many cases, the sympathetic nerve is not only excited and irritated, but there is involuntary contraction of muscular tissue, thus suspending the secretions of the several organs. The indications are, proper sedatives for the vascular excitement, and diaphoretics for contractions or excitement of the nerves, associated with other proper treatment. By this course we shall soon see our patient with a moist tongue, and some of the secretions re-established. (5) Often the tongue changes in the disease from the dryness above referred to to a brown or black colour, with sordes about the teeth. The common idea is that the system is in a typhoid condition. This is true; yet it undoubtedly means, also, that the blood is in a septic condition—a very important fact for us to know. Then our best antiseptics should be given, with stimulants and tonics. Thus we can readily read, from the appearance of the tongue, the condition of the digestive organs, function of nutrition and assimilation, the condition of the nervous system, and the state of the blood. Of course, we must take all other symptoms into consideration. Yet the appearances of the tongue, as pointed out, seldom fail in giving us, at a glance, valuable information as to the true condition of the system.—*London Med. Record*, Oct. 15, 1879.

Treatment of Diarrhœa in Tuberculous Patients.

The following dietetic rules for the treatment of diarrhœa in tuberculous patients are given by M. PÉTER (*Lyon Méd.*, No. 32): 1. Diarrhœa owing to catarrh of the stomach. Give subnitrate of bismuth dissolved in a little water. Strict diet. If cod-liver oil disagrees with the patient, koumiss must be given in its stead. A teaspoonful of lime-water must be added to every cup of milk which the patient drinks. 2. Diarrhœa caused by excess of food and insufficient digestion. Give one and a half grammes of ipecac. to cause vomiting, and a purgative the next day. The diet must be carefully regulated. 3. Diarrhœa owing to gastro-enteritis caused by ulcerations. Strict diet; very little milk, a soft-boiled egg without bread, or beaten up in beef-tea, raw grated meat, about 20 grammes at a time, blisters on the epigastrium, bismuth, diascordium, theriac, laudanum. The skin of the abdomen must be rubbed with Cologne water, alcohol, etc., or large blisters applied. Nitrate of silver may be given in pills, containing 1 centigramme each, increasing gradually to 5 centigrammes. Graves even went as far as 25 centigrammes *pro dosi*.—*London Med. Record*, Oct. 15, 1879.

Coto Bark in the Diarrhœa of Phthisis.

Whatever difference of opinion may exist as to the desirability of attempting to arrest the less severe forms of diarrhœa which we encounter in early phthisis, no one can doubt the value of a remedy which will help us to control the grave and exhausting attacks of diarrhœa which occur in its more advanced stages. Dr. J. BURNEY YEO (*Practitioner*, Oct. 1879) is persuaded that we possess such a remedy in coto bark, and he expresses this opinion with all the more confidence because it has not been arrived at hastily, but represents the observation and experience of more than two years.

During this period, he says, I have given it in many cases of apparently uncontrollable diarrhœa, that is to say, cases of diarrhœa which were not controlled by the ordinary remedies, such for example, as opium, bismuth, tannin, ipecacuanha, etc., and I have found it almost invariably have the effect of arresting the intestinal flux, and of relieving intestinal pain and irritation in a very short time. I say "almost" invariably, for when I first gave it I found no such good result, and on inquiry I found that one of my colleagues had employed it also without effect. This led me to consider the mode of its administration. I found my colleague had given it mixed with other substances and made into pills, and I had given it, in the first cases in which I tried it, blended with the *Mistura Cretæ* of the *Pharmacopœia*. It is deserving of notice that when given in both these forms it appeared inert; and one might have been induced to hastily discard it as a drug without remedial value. This is probably the fate of many valuable medicines which appear to fail; not from want of virtue in themselves, but from want of patience and attention in their mode of administration.

Finding that the fluid extract contained a resinous element which was precipitated in tough masses when the extract was carelessly mixed with water. I had the following mixture carefully prepared:

Fluid extract of coto 60 minims.

Compound tincture of cardamoms, 60 minims.

Mix these together and triturate them slowly with mucilage of acacia, 3 drams, and simple syrup 2 drams.

Finally add water to 6 ounces.

A tablespoonful of this mixture is a dose. In this form it is an opaque mixture, with a not unpleasantly warm and aromatic taste. I have usually found two or three doses of this mixture arrest or check the severest forms of phthisical diarrhœa.

The bark is imported from Bolivia in South America, and the preparation I have used is the fluid extract prepared by Ferris & Co., of Bristol. The dose is from 5 to 8 minims. An alkaloid *cotoïn* has been prepared from the bark, and is reported to have the same valuable properties as the extract of the bark itself, but of that I have no personal knowledge.

I may add that I suggested its use in a case of exhaustive and uncontrollable diarrhœa in one of the graver forms of exophthalmic goitre, which I saw in consultation with my friend Dr. Channing Pearse, of Brixton; and he has since informed me that it not only arrested the diarrhœa, but also appeared to have a remarkable influence in allaying the distressing nervous phenomena associated with the case. I am quite sure that coto bark is a valuable remedy which ought rapidly to come into general use.

Hydrate of Chloral in Dysentery.

Dr. CURCI finds (*Il Racoglitore Medico*, Nos. 15-18, 1878) that chloral hydrate is serviceable in the diarrhœa of typhoid. He has therefore employed it

during an epidemic of dysentery in seventeen cases, always with the best results. At first it was administered in combination with potassium chlorate, but afterwards the latter drug was omitted, and the chloral was given alone in a mess of barley-gruel, either by the mouth to the extent of 1-3 grams per diem for an adult, or as an enema (10 grams in 2000 grams of gruel being sufficient for ten *enemata*). When given by the mouth it is found advisable to administer some slight purgative beforehand to prepare the bowels for the reception of the remedy. Hydrate of chloral is not only a soporific remedy for dysentery, as was supposed by Dr. Prince, who first pointed out its value in this disease, but it has also a sedative, astringent, anti-spasmodic, and anti-diarrhæic action, in addition to its local coagulating and antiseptic properties. If it only lessened pain by producing sleep, its action would be but transitory, whereas it is very persistent, being in reality a sedative to the brain and spinal cord as well as to the sympathetic system of nerves, and it is the latter system which is chiefly affected in dysentery. After the use of chloral it is found that the evacuations are lessened, whilst the flatus, which is such a painful symptom in the disease, is diminished. In regard to the local action of hydrate of chloral, it must be considered that one part is absorbed in the intestine, whilst another is passed on by peristaltic contractions into the cæcum, and colon. After administration in a mucilaginous vehicle in doses of 2-3 grams, the peristaltic movements are at first increased, but then ensue diminished sensibility and movement. These phenomena are due to the stimulation and subsequent paralysis of the sympathetic, and it is in this way that the chloral lessens the pain in the bowels, and the secretion. If the administration be continued till recovery takes place, the chloral exhibits its properties of coagulating albumen, destroying the organized ferment, and hastening cicatrization. In conclusion, Dr. Curci enumerates the other remedies employed in dysentery, and states his opinion that purgatives administered in the early stages of the disease alone approach in value to chloral hydrate. He condemns antiphlogistic treatment, as well as that of opiates and astringents. He has known no good results obtained from the use of *ipecacuanha*, the so-called *radix antidysenterica*, since it only acts as an emetic, and is without effect upon the other processes of the disease.—*Practitioner*, Oct. 1879.

Bright's Disease and Primary Cirrhosis of the Kidneys.

At the International Medical Congress held at Amsterdam in September, Professor ROSENSTEIN read a paper upon this subject of which the following are his conclusions:—

1. The anatomical lesions of the kidneys, which determine the group of clinical symptoms first described by Bright, always involve the parenchyma as well as the connective tissue of those organs.
2. There is neither an exclusive parenchymatous nephritis nor an exclusively interstitial nephritis. Experiment and clinical observation show that where a true diffuse renal inflammation takes place both histological elements are affected from the commencement.
3. The final issue of diffuse renal inflammation is the white kidney and the red granular kidney. They form from the anatomical point of view the atrophied kidney, and only differ in this, that the parenchymatous affection is more pronounced in the former, the interstitial affection in the latter. Clinically the two may be distinguished by analysis of the urine. The symptoms of atrophy are common to both modifications.
4. Clinical observation makes it very probable that, just like the white kidney, the red granular kidney—or, as it is now called, “primary cirrhosis”—is preceded by periods of swelling; and this is not contradicted by pathological research.
5. Bright's clinical description relates especially to the granular white

kidney. In this form the morbid process passes through two stages, which can be determined clinically as well as pathologically.—*Lancet*, Sept. 20, 1879.

Colloid Degeneration of the Skin.

A case of this rare skin disease is reported by M. ERNEST BESNIER in the last number of the *Gazette Hebdomadaire*. The patient, a man aged forty-six, entered the St. Louis Hospital in July, 1879, for extensive pityriasis. It was then noticed that the upper part of his face was the seat of a peculiar eruption having the appearance of "citrine" vesicles. These varied in size, from a bright-yellow spot only visible with the aid of a lens, to a mass as large as a grain of corn. Upon pressure and puncture it was found that the eruption was vesicular only in appearance, and upon scraping the skin a colloid substance came away in the curette. Similar deposits of this gelatinous matter were seen on the inner side of each cornea, and one patch existed on the septum, in the left nostril. Locally the eruption did not seem to have caused any trouble, at any rate not before the patient's attention was called to it. The general health was satisfactory; urine normal; the liver and spleen were healthy; the appetite and digestion good, although the patient sometimes suffered from colic and pneumatosis. The only complaint made was of occipital headache, which occurred daily. Microscopical examination of a portion of the skin showed that the lesion consisted of a colloid degeneration of its connective tissue. M. Besnier thinks that this case is analogous to one related by E. Wagner in the *Archiv der Heilkunde* for 1866, and improperly described as "colloid-milium."—*Lancet*, Oct. 18, 1879.

Surgery.

Indications and Contraindications for Operations in Individuals suffering from Constitutional Diseases.

At the late International Medical Congress held at Amsterdam, Prof. VERNEUIL spoke at length on the pathological importance of this question. His communication may be shortly summarized as follows: 1. Surgical operations are not formally contraindicated in individuals who are affected with constitutional diseases. They may be performed under such circumstances, are often useful, and in some cases even very necessary. 2. Their prognosis is much more serious than in healthy individuals. It is less certain, and more difficult to make; for we have no clue whatever as to the favourable or deleterious effect that the traumatic lesion may have on the general health of the patient; neither can we judge in what way the disease will affect the local process of healing. 3. The prognosis varies according to the different constitutional diseases, and for each of them considered individually. It varies also according to the degree of the alterations that have taken place in the different parts of the body. 4. The danger attached to the diathesis is not great as long as it is still confined within the boundaries of dyscrasia. It increases considerably with the manifestation of chemical and histological lesions. It becomes alarming when the principal viscera—such as the liver, kidneys, spleen, heart, lungs—are extensively affected by sclerosis, steatosis, amyloid degeneration, phlogosis; or when they present pathological products that belong specially to certain diathetic conditions—*e. g.*, tubercles, gummata, carcinomata, and various neoplasms. 5. We are not justified in depriving diathetic individuals of the benefit of surgical intervention, even

in cases where it might be dangerous. It must be the aim of the practitioner to render the prognosis less serious, and to assure the success of the operation. He will succeed in doing this if he be very careful about choosing the most favourable moment for the operation, adopting the best method for performing it, and applying the most efficient dressing. He will also do well in putting the patient under a hygienic, dietetic, pharmacæutic treatment—in a word, under a medical treatment which is adapted to the constitutional disease. 6. The practitioner must be thoroughly well acquainted with the etiology, pathology, development, the end, and the medical treatment of constitutional diseases, in order to make sure of the indications or contraindications for the operation. In this way, he will be better able to judge whether he had better perform the operation or not, and to calculate with more or less precision what the chances may be. A knowledge of these conditions, which perhaps all surgeons do not possess to a sufficient degree, would tend rather to prevent surgical operations than to encourage them, and would inspire the operator with a higher degree of confidence in the efforts of nature supported by a comparatively mild therapeutic treatment. 7. A conscientious examination of the immediate or future effect of operations performed on individuals under some constitutional diathesis will tend to destroy many of our illusions respecting the power of surgical art. It is sad to say, though we must say the truth, that complete and lasting favourable results are very rare. No doubt, there may be many successful operations; but the therapeutic results may be far from successful. A manifestation of the diathesis or some intercurrent affection may be suppressed; but frequently the constitutional disease increases in force and rapidity. Many patients suffering from cancer and scrofula would live longer if they had remained under medical treatment, instead of passing through the hands of surgeons. 8. It is only just to add that, although the aforesaid operations are more frequently attended by palliative than by curative results, nevertheless they are sometimes extremely useful. In extreme cases, they may prolong life, render it less hard to bear, and give the patient at least a gleam of hope. In less serious cases, and where the constitutional disease may be successfully treated, the operation has a good effect upon the treatment, by allowing the medical man to gain time, suppressing an immediate cause of danger, and giving the therapeutic treatment greater scope.—*British Medical Journal*, Sept. 27, 1879.

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On the Cure of Simple Glaucoma by Sclerotomy.

At the late meeting, at Montpellier, of the French Association for the Advancement of Science (*Le Progrès Médical*, Sept. 6, 1879) M. Jaumes (of Montpellier) read in the name of M. DE WECCKER, who was prevented from being present, a paper on this subject, in which he recalls in a few words the history of the question, and in particular the treatment instituted by Græfe.

M. de Wecker has proposed to find an operation for the treatment of simple glaucoma, which would be to this lesion what iridectomy is to inflammatory glaucoma, and thus to complete in its generality the treatment of glaucoma.

The operation which he suggests is sclerotomy, and he enters into quite extensive details as to the manner of performing sclerotomy, as he has practised it; he does not conceal that this operation is quite a delicate one, that it necessitates a certain amount of experience, and he insists upon this essential point, that it ought always to be preceded by instillations of eserine.

Passing on to the results of the operation, M. de Wecker states that during the first six months of this year he has performed forty-eight operations of sclerotomy, and that he has had every reason to congratulate himself upon the results obtained.

Iridectomy diminished vision to a great degree; he has been fortunate in proving that this difficulty is considerably lessened by the employment of sclerotomy.

He acknowledges that the definitive sanction of this operation can only be found in a more protracted clinical observation; but he is happy to state that at present sclerotomy, although its application is so recent, has been practised and adopted by a relatively large number of foreign practitioners.

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Foreign Body in the Base of the Orbit without Symptoms.

At a meeting of the Medical Society of Greifswald (*Deutsche Medizin Wochenschrift*, August 16th), Dr. SCHIRMER related a case in which a foreign body had remained five months in the orbit without producing remarkable disturbance. On February 20th, a soldier aged 25 came to the eye-clinic on account of entropion of the left lower eyelid; the middle part was specially affected, being turned inwards at an angle. The cause of this was apparent in the form of a cicatricial band extending from the edge of the lid to the lower fold; it implicated the conjunctiva and a portion of the tarsus, but left the cutis free. Another vertical cicatrix passed through the thickness of the whole upper eyelid, not quite reaching the edge. There was also a vertical cicatrix nearly an inch long on the forehead, reaching as far as the left eyebrow. In the previous October, during a fight, it was said, the patient had been wounded in the forehead and upper eyelid by a knife; but the eye had not been injured. These wounds were united by sutures; the injury of the lower lid was not noticed. The entropion had set in soon afterwards. On examination, it was found that the conjunctival cicatrix was firmly adherent to the base of the orbit; and it was hence supposed that the instrument which produced the injury had penetrated the antrum of Highmore, and had pushed a portion of the lower fold of conjunctiva into the opening of the bone; and that, perhaps, also a broken portion of the knife remained there. No foreign body, however, could be felt with certainty in the orbit. An incision about four-fifths of an inch long was made through the soft parts along the lower border of the orbit; and the floor of the orbit was explored with a blunt instrument as far as the cicatrix. At this part, there was found a broken piece of knife, with its back turned towards the border of the orbit, and its edge towards the eyeball. Some force was required in removing it. It was a piece of a knife, about an inch and one-third long and three-fifths of an inch wide. After its removal, the lower eyelid regained its normal position, and the patient was discharged completely cured.—*British Med. Journal*, Oct. 18, 1879.

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Acute Purulent Catarrh of the Right Middle Ear.

The following interesting case is recorded by Dr. KRATZ in the *Berlin. Klin. Wochenschrift* for April 21st. The patient, a girl, aged 9, had always enjoyed good health till about a week before she was seen by the author. She was then suffering from purulent catarrh of the right middle ear; and, on examination, a small opening of the size of half a lentil could be detected between the incus and the lower portion of the tympanum. The mastoid region was tender to pressure and oedematous; the external meatus was inflamed; the tympanum red, flat, and much swollen. The whole meatus was filled with thick yellow pus. The glands about the ear were swollen; but the parotid was free. The patient had a slight angina and fever. Her power of hearing was much impaired on the right side. When spoken to in a very loud key, she could hear at the distance of about twenty inches; the ticking of a watch only when put close to her ear; but the sound produced by a tuning-fork was distinctly heard over the whole of the head. After the meatus had been well syringed and all the pus removed, the opening in the tympanum could distinctly be seen. On pressing slightly with the finger on

the jugular vein of the same side, pus was very rapidly discharged through the opening, the discharge ceasing when pressure was removed. This phenomenon was repeatedly produced, not only on the same day, but several days successively. The origin of it remains unexplained, as, under normal conditions, the jugular vein does not communicate directly with the interior of the tympanum. The possibility of an abscess having formed on the vein and communicating with the tympanum must be excluded, as nothing in the state of the patient proved its existence; and, besides, the circumstance that the pus was only discharged by pressing on the vein would disprove such a supposition. Another explanation of the phenomenon was, that the perforation was either a congenital deficiency or caused by caries. Under such circumstances, pressure on the jugular vein would drive the blood upwards, cause the bulb of the vein to dilate, and thereby cause the pus which had accumulated in the tympanum to be discharged. Similar cases have been observed by several authors—Toynbee, von Trötsch, Schwartz, etc. The author was of opinion that the aperture was congenital.—*British Med. Journal*, Sept. 27, 1879.

Depression of the Left Frontal Protuberance treated by Trephining.

Dr. HOUILLOT publishes in the *Gazette Médicale de Strasbourg*, No. 1, 1879, the following case of injury to the brain, which was cured by trephining. The patient a farm-labourer, aged 28, had, in a fight, received a blow on the head with a cudgel, which stunned him for about a quarter of an hour. On the next day, he went to his work as usual, and worked for eight days, at the end of which time he fell down suddenly as if he had been shot, but got up again. From this time, he began to suffer from vertigo and somnolence. A careful examination was made, but nothing could be detected except slight paresis of the right arm and tremor. He vomited much during the day. A probe having been introduced into the oblique wound which he had on his forehead, it was found that the frontal bone was fractured and depressed. The patient was taken to the hospital, and it was decided to perform the operation at once. A cruciform incision of one and a half inches was made over the wound, and an opening measuring four-tenths of an inch in depth and one inch across was discovered. The fragments of bone having been removed by means of a hammer and chisel, a purulent collection was found beneath the dura mater. The latter was detached from the brain for a space of nearly two and a half inches, but had remained intact. The pulsations of the brain could be perceived. An antiseptic dressing was applied. There was almost no reaction; the temperature never rose beyond 98.6°; and the cerebral symptoms (cephalgia, vomiting, slow utterance) disappeared almost immediately. The progress of cicatrization went on very rapidly; and the patient, who had been wounded on May 4th, was able to return to his work on June 14th.—*British Med. Journal*, Sept. 27, 1879.

Total Extirpation of the Parotid Gland.

In an interesting paper read before the Finland Medical Society (*Hospitals Tidende*, Jan. 1879), Professor ESTLANDER stated that the entire parotid gland had rarely been removed. Though the operation has many opponents and is difficult, it is, nevertheless, necessary and proper in certain cases, notwithstanding the danger of wounding important nerves and vessels. Though the complications which sometimes accompany the operation are unpleasant, they are not so permanent as many suppose. Estlander has had some of the patients under observation for twenty years or more, and found their condition very much improved. Notwithstanding the fact that all the branches of the facial nerve are severed in

the gland, the patient has a certain power of contraction in the sphincter muscles of that side. Tumours may be removed from this region just as well as from others. In performing the operation, it is recommended not to ligate the carotid primarily. The cutaneous incision should be made so as to prolong it, if necessary, and then ligate the arteries. By prolonging the incision farther downward than is actually necessary, the advantage is gained of rendering the lower border more free and accessible, so that the position of the carotid and its relation to the tumour may be ascertained. The capsule of the tumour should be protected, so that the latter may be removed as a whole. First loosen the tumour at its lower border and sides, and gradually work upward; the upper portion usually presents the greatest difficulty. The bleeding from the branches of the external carotid is about the same whether the carotid is ligated or not. It is usually found that a tumour which can only be removed at the commencement with the knife and scissors, is later more accessible, and can be loosened with the fingers and the handle of the scalpel, and without coming in collision with the carotid.—*New York Med. Journal*, Oct. 1879.

Surgical Treatment of Goitre.

Dr. WÜLFER, in speaking of the treatment of goitre with subcutaneous injections of iodine, says (*Langenbeck's Archiv*, Bd. 24, Heft. 1) that favourable results have been obtained both in cases of simple hyperplasia, and of colloid degeneration. He illustrates his statement by a few cases from Billroth's clinic, and an experiment on a dog made by himself. The lobes of the thyroid gland of this dog had respectively attained the size of a goose's egg, and the author made ten injections of iodine into one of the lobes. The dog was killed at the end of a month, when the portion of the goitre into which the injections had been made was found to have dwindled down to the size of a man's thumb; it consisted of connective tissue which no longer contained any colloid liquid. The peripheric part of the injected goitre presented the same appearance as the lobe which had remained untouched; it consisted of large meshes of connective tissue, which contained colloid fluid. There were no traces of inflammation or hemorrhage following the injection of iodine. Several strumous cysts were treated in a different manner: one cyst with thin walls was absorbed after injections of iodine; two other cysts resisted this treatment. In two cases Billroth drained strumous cysts with antiseptic precautions. In one of these cases, the cure was speedily effected; in the other, the cyst was not wholly absorbed, as there were calcareous deposits in its walls. The sac was then opened and the contents removed, after which the patient, a woman aged 72, recovered. The author thinks that tapping the cyst and putting in a drainage tube ought to be done in cases where a cyst does not collapse immediately after being tapped, or in old people where the injection of iodine might be succeeded by a too strong reaction, but where extirpation of the goitre might prove fatal. In the course of the last year, Billroth has extirpated goitres in seven cases under antiseptic precautions, the results having each time been very favourable. In one of these cases the patient was suffering from malignant cystous papilloma; in another case the struma was of carcinomatous nature. All the wounds healed by first intention.—*London Med. Record*, Oct. 15, 1879.

A Case of Empyema in which Portions of the Ribs were Excised.

At a recent meeting of the Clinical Society of London (*Med. Times and Gazette*, Oct. 18, 1879) Dr. F. TAYLOR read a paper on this subject. The patient was a child, aged six, who was admitted into the Evelina Hospital in

January, 1877, with a history of acute pleurisy eleven weeks previously. The left chest was shrunken, and dull on percussion posteriorly, with deficient breath-sounds, and some crepitation at the base in front. The temperature was at first nearly normal, but after a time it fluctuated considerably, often rising in the evening to 103° Fahr. As this continued, and the physical signs were confined to the base of the left chest, this was explored on April 16, and pus was found. The chest was then incised, and about ten ounces of pus were discharged. Tubes were inserted, and the chest washed out daily. On May 20 a counter-opening had to be made, but by the end of June very little real progress had been made, as the sinuses rapidly closed, and thus the pus secreted was retained. On July 2, Mr. Howse made a T-shaped incision through the skin round the existing aperture, and after separating the periosteum, removed with the bone-forceps portions of the seventh, eighth, and ninth ribs. Each portion was about an inch and a half long. The thickened pleura was then cut through from the sinus, and two drainage-tubes were inserted. The immediate improvement was decided, but the wound rapidly filled up, and in a short time the sinus was reduced to a channel no bigger than it was previous to the operation. From this time nothing further was done by operation. The pus continued to be secreted, and its retention was quickly followed by hectic symptoms. Albuminuria was discovered in September, 1877, two months after the operation; anasarca developed later, and there was frequent diarrhoea, so that she sank from the internal complications in October, 1878. At the post-mortem examination the empyema was found to occupy chiefly the posterior part of the chest, reaching from base to apex. The lung was airless except at the apex. There was no tubercle. The sixth, seventh, and eighth ribs were united by bony bridges. The liver, kidneys, and intestines were lardaceous, and there was recent acute peritonitis. The operation performed in this case permitted more falling in of the chest than would have otherwise taken place, but did not facilitate the drainage so much as was desired. This was due to the rapid development of granulations and bone, which took place after the operation, the opening being quickly reduced to a narrow sinus. In another case it would probably be advisable to remove the periosteal tissue much more freely, even if it necessitated also the removal of the thickened pleura. The large opening thus obtained would also allow more complete exploration of the smaller cavities, apparently distinct from the main cavity, such as were found in this case at the time of the operation.

Total Unilateral Rupture of the Kidney.

Dr. ANDERS, in No. 50 of the *St. Petersburger Medicinische Wochenschrift*, gives the following account of an interesting case. The patient, aged 15, a well built and well nourished individual, fell from the second floor of a house to the ground, but was not rendered insensible. He said that he had first struck the ground with his feet and then with the right hip. No symptoms of external injury could, however, be seen, except a slightly purplish spot over the right trochanter. No fracture of any kind could be traced, neither was there any symptom of concussion of the brain or spinal cord. He could not walk very well, but was able to move his extremities freely when lying in bed. The pulse was small, 60. Sensibility was not decreased. He freely passed bloody urine. The patient complained of severe pain in the abdomen, especially in the left renal region, but nothing abnormal could be detected in that part, either on inspection or palpation. The epidermis, and those parts of the mucous membranes which were visible to the eye, were exceedingly pale. The urine, on being examined under the microscope, was found to contain a large number of red blood-corpuscles. Towards night, the patient grew weaker, his abdomen was inflated, he frequently passed

bloody urine, and complained of an increase of pain in the left lumbar region and the abdomen, especially if touched there. The symptoms of internal hemorrhage increased; he was a little delirious during the night. On the next morning, the mucous membrane seemed to be perfectly bloodless, while the skin was yellow. During the night, the urine was very little bloody, and on the morning quite clear. The patient died at 11 A. M. The treatment consisted in applying ice-bags to the abdomen and the lumbar region, and in giving several doses of morphia during the stage of prostration. At the necropsy, the thoracic viscera and the brain were found perfectly normal. On opening the abdominal cavity, several superficial subperitoneal extravasations, varying in size from a three penny-piece to a penny-piece, were seen, both on the visceral as well as the parietal peritoneum, especially in the portions which corresponded to the cæcum, descending colon, sigmoid flexure, and parts of the ileum. A dark blue tumour of the size of a child's head, extending from the iliac fossa to above the tenth rib, and covering the three superior lumbar vertebra, was found in the abdominal cavity. It consisted of coagulated blood, in which the kidney, which had been torn into two distinct halves, was found imbedded. The rupture was transverse, going from the anterior superior part of the organ to the posterior inferior, and extending over the capsule and the pulp. The pieces were about two inches distant from each other, and entirely separated from their adhesions. The ureter was torn off, and was attached, to the length of two inches, to the lower fragment; the renal vein and artery were in the same condition. The right kidney was perfectly sound. The peritoneum was not ruptured. No fluid was contained in the abdominal cavity, and no blood in the bladder. Dr. Anders remarks that this case belongs to a class of rupture of the kidneys which very seldom comes under observation. 1. All the other organs remaining unaffected, the left kidney only was the subject of an indirect injury. 2. Death was caused by acute anæmia, as shown by the large clot of blood which was found in the left renal region and the hematuria. 3. The vein, artery, and ureter, were all three divided. 4. The reason why no blood was passed with the urine in the morning is, probably, that the blood being still liquid for the first hours after the accident, flowed down the divided ureter into the bladder; but later on coagulating stopped it, so that the urine which was secreted by the right healthy kidney remained clear, and was passed as such.—*British Med. Journal*, Oct. 18, 1879.

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The Stigmas of Maize in Disease of the Bladder.

Dr. DUFAU (*Le Progrès Médical*, July 19, 1879), believes that the introduction of the stigmas of maize into therapeutics is still too recent to afford sufficient material for the study of their mode of action. He puts forward, however, certain conclusions at which he has arrived, founded upon cases which have occurred in his own practice, as well as from the contributions of numerous friends. The stigmas of maize have a much greater influence in all diseases of the bladder, whether in cystitis, gravel, or any other case, when they are fresh than when they have been kept. In acute traumatic cystitis as well as in blennorrhagia, they exert a marked diuretic action, with an increase of the pain. In such cases, therefore, it is better not to make use of this drug. The best results from its use are obtained in the case of patients with gravel, either uric or phosphatic, or in those who are suffering from chronic cystitis, whether the disease is simple or is a result of gravel, and in mucous and muco-purulent catarrh of the bladder. Under the influence of the maize all the symptoms, such as vesical pain, difficulty in passing water, the excretion of dark-coloured urine, the ammoniacal odour, etc., rapidly disappear. The retention of urine frequently gives way to this mode of treatment, but the catheter should still occasionally be used, as the

bottom of the bladder is not always completely emptied. Many of the patients under observation had previously employed the more usual remedies of tar, turpentine, and Vichy or other mineral waters, with varying results. The stigmas of maize often afforded relief where such means had failed. In some cases a certain improvement was effected by the methods alluded to, after which the condition of the patients remained stationary. The administration of the stigmas of maize produced in these cases either a cure, or a turn for the better, and induced a favourable action of the previous remedies. In other cases, however, these preparations which had been of no avail when first given, became efficacious after the ground, so to speak, had been cleared by the stigmas of maize. More generally, however, the maize alone was capable of effecting a cure. In some cases it is well to combine the maize treatment with the usual external applications; of these the irrigation of the bladder with a stream of water is very useful, but the best method is to inject various solutions, such as borax, tar, silicate of soda, or bicarbonate of soda if the urine is very acid, and benzoic acid if it is strongly alkaline, etc. The stigmas of maize act as very energetic but perfectly harmless diuretics in diseases of the heart, in albuminuria, and generally in all those cases in which an ordinary diuretic is required. In a number of cases the quantity of urine is increased three and even fivefold within the first twenty-four hours, and in other cases this drug has been employed for two months without accident. It is useful to remember this fact, as the diuretics in ordinary use, nitrate of potash, digitalis, squills, etc., are not always convenient, or free from danger. The mode of preparing the stigmas of maize, has been already described, but it is not perhaps sufficiently well known. The stigma as a decoction give the same results as the extract, but they are much less active and have an irregular action which is easy to explain. The plants are picked and dried under varying conditions, and they are sometimes even ground, hence the decoction varies in strength from day to day. The extract and syrup, however, having always the same composition, give constant results, and as the volume is less, a much larger dose of the drug can be administered. From an economical point of view it is best to give the syrup in the decoction of stigmas. It is in fact of great importance, as with all diuretics, to dilute the syrup with a certain quantity of water; the results obtained with the extract given in the form of a pill differ sensibly. The syrup, with a decoction or with water, forms a very pleasant drink, of which patients do not get tired. The drug should be taken fasting. Two or three teaspoonfuls of the syrup a day are generally sufficient.—*Practitioner*, October, 1879.

Radical Cure of Hydrocele.

Mr. HILLIS having had much experience of the treatment of hydrocele in British Guiana, and having been disappointed with the results obtained by using iodine in the proportion of one of tincture to two or three parts of water, was induced to try the undiluted tincture of the *British Pharmacopæia*. Two to four drachms are thrown into the sac after tapping, and the sac gently manipulated for some time. Cases of previous failure, cured by this plan, are reported in order to impress upon the profession the real value of this old, yet often forgotten, suggestion.—*London Med. Record*, Oct. 15, 1879.

Hemorrhage from the Carotid Artery in a Case of Phlegmonous Tonsillitis.

EHRMANN reports (*Centralblatt für Chir.*, No. 34, 1879) the following instructive case:—

A young Italian entered the hospital with an *angina tonsillaris*. On the third day the abscess opened spontaneously, and immediately one half a litre of bright-

red blood poured from the mouth. Three hours later the hemorrhage recurred, but in less quantity. No pulsation could be felt in the tonsillar tumour. A third hemorrhage, more severe than both of the preceding together, led to the ligation of the common carotid artery, which was then severed, between two double threads. The hemorrhage ceased. The patient presented no cerebral disturbance aside from a distinct aphonia, which disappeared in four days. In six weeks he was discharged cured.

Ehrmann completes his interesting and valuable essay with the following conclusions: 1. Phlegmonous inflammation of the tonsils can lead to abundant and spontaneous hemorrhage, an accident likewise occasionally caused by deep ulcerations. 2. In many instances the bleeding comes directly from the internal carotid, in occasional cases from branches of the external. 3. The diagnosis of erosion of an artery before opening of the tonsillar tumour is impossible. In occasional instances pulsation of the tumour has given warning before the incision was made; in others it was not distinguishable. The rational treatment of such a hemorrhage lies in the ligation of the carotid; and, as during life the source of the bleeding, whether from the internal or branches of the external carotid, cannot be determined, the common carotid is to be preferred. The original article contains a very useful *résumé* of the whole subject, with cases; views on the source of the hemorrhage in general diseases and local affections, which may lead to erosion of an artery; the cerebral disturbances, which may follow ligation of the common carotid, etc.—*New York Med. Journal*, Oct. 1879.

A Method for Controlling Hemorrhage during Amputation at the Hip-Joint.

The following might be found useful as a method for controlling hemorrhage during operation at the hip-joint. It was employed by Mr. Spence with complete success in a case reported (*Lancet*, Sept. 20, 1879) by Mr. R. PURDIE, Resident Surgeon, Edinburgh Royal Infirmary.

The patient was admitted into the Royal Infirmary in a very weak and debilitated condition, the history being that two years previously he had suffered from scarlet fever, and that during his convalescence he had neglected proper precautions against cold, etc. Abscesses formed at the hip, the leg became quite useless, and his health gradually became more impaired. During his journey here erysipelas of a phlegmonous nature developed itself, lasting for some weeks, and leaving the whole leg in a swollen, œdematous, deformed mass, with sinuses leading down to the joint, which was in a state of firm fibrinous ankylosis.

Mr. Spence, though unwilling to perform any operation, owing to the patient's condition, yet, considering it was his only chance for life, resolved to amputate, using the following method, in order the more completely to control the hemorrhage. The sinuses which were at the outer side of the limb were connected by an incision. The head of the femur was cut down upon, and, with difficulty, owing to the ankylosis which had taken place, was excised. The thigh was then transfixed by a long sharp-pointed steel skewer, three-eighths of an inch in breadth, the point entering at the incision which has just been made, and then taking the course which the knife usually takes in transfixion for the anterior flap. A firm india-rubber band was then twisted tightly round the skewer, including the anterior part of the thigh, much after the method in which vessels are secured by acupressure. Another band was twisted round posteriorly, thus securing the posterior vessels. The operation was then completed by cutting the anterior and posterior flaps. After the vessels were secured the bands were loosened, the skewer removed, and the flaps stitched and dressed. During the excision a small quantity of blood was lost, but during the after-part of the operation scarcely a drop.

Mr. Spence remarked to the students after the operation that this method was most advantageous in cases such as the preceding, where a comparatively firm ankylosis had taken place, or in cases where the shaft has become separated at the trochanters by diseased action, great difficulty being found in removing the head of the femur, and the operation thus prolonged. In cases where none of these difficulties are met with, this method is not so necessary, as the leg can be removed with great rapidity, and the vessels grasped in the hand after the flaps are cut, so that no great amount of blood need be lost, the rapidity of the operation diminishing also the amount of shock.

Outbreak of Eczema on Amputated Stumps.

At a recent meeting of the Société de Chirurgie de Paris, M. DUPLAY said (*Bull. Gen. de Thérap.*) that he had seen two cases of an acute eczema breaking out on the extremity of amputated stumps. One case was that of a man who had had his arm amputated for phlegmon of the tendon sheaths and suppurated arthritis; the other patient had had his leg amputated for fracture. Neither of them had suffered before from arthritis or herpetic affections. Neither had there been any other inflammatory phenomenon on the extremity of the stump. In both cases the eczemata healed within six months. This eruption appears to be caused by a neuritis of the nerves of the stump, and ought to be considered as an affection of the trophic centres, though the real cause of it is still unknown to us. The affection in itself is not dangerous, but tedious, because it prevents the application of a prothetic apparatus. The treatment is the same as in ordinary eczemata, and the affection may be said to heal of its own account.—*Lond. Med. Record*, Oct. 15, 1879.

Spontaneous Anterior Subluxation of the Hand.

Dr. MADELUNG publishes, in von Langenbeck's *Archiv* (vol. xxiii), a report of twelve cases of this affection which have come under his notice. In one of the cases, he was able to make a thorough anatomical examination. The upper border of the articular surface of the radius had degenerated into a tuberosity, which prevented the carpus from assuming its normal position; the epiphysis of the radius was considerably inclined towards the volar surface. There were no signs of inflammation. The author regards this deformity as dependent on an arrest in the growth of the wrist-joint, and as being analogous to talipes valgus and genu valgum, which are caused by excess of weight pressing on the lower extremities. This spontaneous subluxation is most frequently met with in the age between thirteen and twenty-three, and in females belonging to the working-classes, especially laundresses. The movements of the joints are limited to a certain extent by the arrangement of the bones, the ligament, and the muscles. The latter are of special importance for the movements of the wrist-joint. The manual labour of daily life is almost entirely executed by the pronator muscles. Excess of flexion on the palmar surface is prevented by the tendons which run across the epiphysis of the radius, and, in arduous manual labour, exercise a constant pressure on the bone. When this muscular apparatus is unable from exhaustion to discharge its functions any longer, the bones and ligaments take its place; and thus gradually the excessive pressure on one part of the articular surface of the radial epiphysis arrests its further growth, and favours the excessive development of those parts which are not subject to pressure. This deformity of the articular surfaces is always accompanied by pain in the affected joint, which has often been erroneously ascribed to neurosis. If the patient continue to work as before, subluxation of the joint ensues, the pain ceases, and the wrist-joint becomes deformed

and much limited in its movements. When the affection is fully developed, it becomes incurable; but it may be arrested by carefully avoiding all labours which entail a forced dorsal flexion, and by wearing a broad leather strap which fits tightly to the joint, can be made tight or loose according to the wearer's will, and prevents the articulation from executing excessive movements.—*British Med. Journal*, Oct. 18, 1879.

Excision of the Elbow.

Prof. OLLIER, of Lyons, in a paper read at the Montpellier Congress (*Gaz. Hebd.*, Sept. 12), observed that at the commencement of his practice he performed this operation only exceptionally; but having recognized its value he found that his results are much more satisfactory than formerly—a fact which he thinks attributable not only to improvements in operating, but especially to improvements in dressing. In spite of the great success which he has obtained, this operation is still practised but little in France, while abroad, especially in Germany, it is perhaps too frequently resorted to. In very young children Prof. Ollier very rarely performs excision, nature presenting great resources at this age, so that by the aid of a good hygiene, a tonic diet, immobilization, and ignipuncture, arthritis of the elbow may be rapidly and completely cured. In the second stage of childhood and in adolescence it should be practised at an early period, as the cure is then rapid and the reproduction of an articulation of the same type usually takes place, the patient preserving a vigorous limb. Beyond twenty Prof. Ollier seldom performs the operation, a useful limb rarely being produced after this age.—*Med. Times and Gazette*, Oct. 4, 1879.

Subperiosteal Excision of Elbow.

At a late meeting of the New York Pathological Society (*Medical Record*, Oct. 25, 1879), Dr. LANGE exhibited a patient upon whom he had performed subperiosteal excision of the right elbow-joint, after Prof. Voight's method, and gave the following history: Patient was nineteen years of age, and had a stiff right elbow from his early childhood. He knew nothing about the cause of this trouble. The arm remained thin and powerless, and any exercising caused pain in the joint, especially during the last two years. Various methods of treatment were employed but without avail, and the patient finally resolved to get rid of his trouble by an operation.

At that time the patient was in good health. The right elbow was ankylosed at an angle of 90° , with a mobility of nearly 10° . The tissues about the joint were somewhat thickened, but no fistula or other indication of existing suppuration was present. The olecranon and head of the radius seemed thickened, and they were very painful on pressure, showing chronic osteitis. The operation was performed on the 25th of June by means of a bilateral incision, antiseptically made without spray, and by the bloodless method. The periosteum was carefully preserved; in all those places where important tendons or ligaments had their insertion (olecranon, coronoid process, epicondyles of humerus, etc.), thin layers of bone were separated by means of hammer and chisel, and remained in connection with the periosteum, according to the plan of Voight.

The operation was somewhat tedious and difficult, the periosteum being thickened and tense, and all recesses of the joint obliterated. Lister's gauze dressing was applied. The after-treatment consisted of a dorsal splint of plaster-of-Paris, with elevated position and slight extension. The position of the arm was about 150° . After the tenth day position was changed every second day to the extent of from 75° to 150° . At the end of the third week, articulated silicate dressings

(with shoulder piece), which had a movable joint and rubber strips, were applied corresponding to the new joint. The joint allowed a slipping of the bones of the forearm upward and backward, according to the physiological position of the ulna. Active and passive movement were freely practised by causing the patient to lift a box filled with sand, the amount of which was increased every day. These exercises effected a stretching of the elbow. The arm, by means of the strip, was held in a right angle. The weight of the sand was chosen always a little beyond the strength of the patient to master it, so that it slowly extended the arm, the patient endeavouring to prevent this, and struggling against the weight by the power of his muscles. The rubber strips kept up a passive dragging of the ligaments and held the bones in a certain adaptation.

After the seventh week the apparatus could be omitted, the new formation of the bones being very significant, and almost complete cicatrization had been complete at end of fifth week. There had not been any significant discharge since the second week, only those places discharging superficially where the drainage-tube had been introduced.

The reaction after the incision had been quite insignificant. A bloody infiltration of the arm and forearm disappeared under the physiological changes of colour, and was reabsorbed without interfering with the healing process.

When the patient was exhibited to the Society, just three months after the operation, the elbow presented nearly its abnormal shape. Motion was between 80 and almost 180 degrees, without any abnormal lateral movability. The condyles of humerus appeared stronger than normal. Pro- and supination almost normal (had been exercised also methodically every day, the apparatus being removed for this purpose). The head of the radius was well marked, and normally faced the external condyle. The olecranon was distinctly formed, but was a little smaller than normal. Above its apex something like a sesamoid bone could be felt in the triceps tendon. The arm was so strong that the patient was able to lift a chair, seizing it by the leg, and after stretching the arm he held the chair a good while in the air. The flexion to an acute angle was difficult. The specimen showed deep depressions in the articular part of the ulna, especially one behind the base of the coronoid process. Its walls were hard and smooth; they were covered by a dense fibrous tissue which surrounded a small quantity of cheesy matter. All the depressions in the bone were filled with a succulent fibrous tissue, which sent vascularized adhesions to the opposite cartilage; so the process was on its way to cicatrization. The bones of the humerus were almost normal; cartilage of radius showed some cicatricial depressions; its head had an abnormal process towards the articulation, with the ulna, which was entirely obliterated by a dense fibrous mass.

The Rapid Treatment of Club-foot.

Mr. H. A. REEVES, Surgeon to the East London Hospital for Children, describes (*Med. Times and Gaz.*, Oct. 25, 1879) his method of treating club-foot, which is applicable to the large majority of congenital or acquired deformities of the feet; but the milder cases—those in which slight pressure will bring the foot into the normal position, and in which the rebound on relaxing the grasp is very slight—can, with patience, be cured without operation.

The patient being held by a nurse or assistant, and the foot being in the right position, the tendons of the tibialis posticus and flexor longus digitorum are first divided, and a pad and strip of adhesive plaster applied. Then the tendon of the tibialis anticus is divided, and a pad put on. Immediately after the tenotomies, the foot is forcibly but steadily brought into its right position, and kept there by

an assistant while a flannel bandage is put on. Over this is put a plaster-of-Paris bandage, then a thin layer of plaster paste, and finally another bandage and more paste. Sometimes a third plaster bandage is necessary, but in infants and children it may be dispensed with. Of course, the bandages must not be too tightly applied, and it is well to protect the bony prominences with a little cotton-wool. The foot is held in position until the plaster has set; and instructions are given to the parents to bring the child at once to be seen, or they are told how to loosen or remove the bandage should the toes become cold and purple.

If the inner part of the plantar fascia be tense and interfere with the straightening of the foot, Mr. Reeves divides it first, forcibly stretches it, and at once thereafter divide the tibials and flexor longus digitorum. He adopts this plan, which differs from that usually recommended, so that the uncut tendons may resist him, and thus enable the anterior part of the foot to be more successfully abducted. In most instances he leaves the foot in the plaster case for a week; but in the more severe cases ten days to a fortnight are necessary. At the expiration of this time the bandage is removed, and the foot will be seen to have assumed its proper position. It is then well worked (i. e., abducted), afterwards the tendo Achillis is divided, and the heel firmly but gently brought down. The pad and bandages are put on while the foot is held in the corrected position, the toes being left free, but the heel covered. Another week or ten days usually suffices by this method to bring the deformed foot into its normal position, and then the bandage is removed by cutting it in the mid-line, along the anterior aspect of the foot and leg. The foot is then well worked in the desired directions and the leg-muscles shampooed. The mother sees how this is done, so that she or her husband may occasionally do it at home, and the child is brought once a week to be seen by the surgeon.

If the child be old enough to walk, it is measured for a proper boot and support at the commencement of the treatment, and in most cases in three weeks after the first operation it is allowed to walk. The foot is well worked night and morning, and the second plaster bandage is put on at bedtime and retained in position by an ordinary roller. This is ordered to be continued for several weeks in order to prevent a relapse. Except in very severe cases an anæsthetic is unnecessary, but in private practice, should it be desired to prevent the child crying, it may be given.

Mr. Reeves has now had considerable experience in this as well as in the ordinary modes of treating club-feet, and so far has never had a relapse if the instructions have been properly carried out. He can therefore confidently recommend it to surgeons interested in such matters.

The advantages of the method proposed are briefly the following:—1. The results are rapid and satisfactory. 2. Expensive apparatus is unnecessary. 3. The muscles, joints, etc., are worked and exercised, and not allowed to atrophy or become temporarily fixed, as in the German method; and, 4. The patient, in ordinary cases, may be allowed to use the foot or to walk in three weeks after the first tenotomy.

Traumatic Tetanus: Different Methods of Treatment.

Dr. MOLLIERE relates the following case in the *Gazette des Hôpitaux*. The patient, aged 25, had been accidentally shot in the right foot. The fourth and fifth toes were so badly injured that they were amputated at once; the first phalanx of the third was fractured and the articulation opened, but it was thought that it might be preserved. The patient was treated antiseptically, and seemed to progress well during a fortnight, when suddenly he began to complain of a feeling of lassitude, the wound became very painful, and he experienced some

difficulty in opening his jaws and turning his head. The toes were dressed with laudanum, and the patient took half a drachm of bromide of potassium and a drachm and a half of chloral daily; he had also two hypodermic injections of morphia. Notwithstanding this treatment, the patient became worse, the pain in the foot increased, and all the symptoms of acute tetanus showed themselves; he had general convulsions, could not move his head or open his mouth, perspired abundantly, had very high temperature, etc. The wound becoming exceedingly painful, the injured toe was amputated. From that day the local pain ceased, and the other symptoms gradually vanished. The patient remained sleepless for a rather long time, notwithstanding the use of hypnotics, but could open his mouth more freely, and could swallow. Smaller doses of chloral and bromide of potassium were given, and a month after the operation the patient was well enough to leave the hospital. On dissecting the toe which had been removed, it was found that a small sharp fragment of bone was sticking in the internal lateral nerve, and had in this way caused the tetanic convulsions. This case is remarkable on account of the different methods of treating tetanus having been combined in the treatment. Without the amputation, the drugs given would have had no effect; but on the other hand, if the powerful doses of hypnotics had not been administered, the surgical treatment would, in the author's opinion, have proved useless.—*British Med. Journal*, Oct. 18, 1879.

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Supra-orbital Neuralgia cured by Nerve-stretching.

Dr. KOCHER relates, in the *Correspondenzblatt für Schweizer Aerzte*, November 11th, 1879, the case of a man aged 32, who had for seventeen years suffered from neuralgia of the right supra-orbital nerve. The attacks, at first rare, afterwards became more frequent, until at last there were only brief intervals of freedom from pain. All the ordinary therapeutic measures had been tried for years without success. Dr. Kocher laid bare the nerve and three of its branches by an incision along the upper border of the orbit, and stretched it forcibly by means of an aneurism-needle passed under it. The healing of the wound was attended with abundant suppuration. From the moment of the operation, the patient was free from pain, and the neighbourhood of the supra-orbital nerve was anæsthetic. The patient was last seen three months after the operation; he had had no return of the pain; sensation was diminished over a space ten *centimètres* in extent, but was otherwise perfectly restored. After neurectomy, paroxysms of pain are usually observed during the first few days after the operation. As these were absent in the present case, Dr. Kocher concludes that the lesion of the nerve is less when the nerve is stretched than when it is divided. The value of nerve-stretching as a substitute for excision will be greater in neuralgia of the second and third divisions of the fifth nerve, as here a much smaller wound will suffice.—*British Med. Journal*, Oct. 18, 1879.

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Midwifery and Gynæcology.

Double Uterus with Double Conception.

Dr. SOTSCHAWA, of Moscow, reports in the *St. Petersburg Med. Woch.*, Jan. 1879, the case of a woman, aged 26 years, who called him on account of a hemorrhage occurring during a third pregnancy. On examination he found two distinct vaginas, each one terminating in a uterus. The finger passed readily through the first of these, and he found an ovum presenting; the uterus seemed to correspond

to about the second month of conception. The vagina of the other side (right) was narrower, but the neck could be reached, and appeared to belong to a uterus of three months. The hemorrhage had its source in both uteri, and in consequence was considerable; an embryo of one month was extracted with the finger from the left uterus, and three days later a fetus of three months was extracted from the right uterus. The author observes that this case is not only remarkable for its rarity (only thirty cases being on record) but also because it is a proof of the possibility of superfetation.—*Chicago Med. Journ.*, Nov. 1879.

The Condition of the Cervix Uteri in Cases of Placenta Prævia.

Dr. GEORGE ROPER, Physician to the Royal Maternity, London, calls attention (*Lancet*, Oct. 25, 1879) to a hitherto unrecorded fact, which consists in a peculiar induration of the os or cervix uteri, at the site of placental attachment, dependent on an alteration of the uterine texture of that part on which the placenta is implanted. From clinical observation it may be said, that wherever the placenta grows, whether on the fundus or elsewhere on the inner uterine surface, the area of attachment is marked by induration and thickening of the uterine tissue, and in Dr. Roper's experience the induration has constituted one of the greatest difficulties in the way of safely effecting forced delivery.

If we have to deal with a case of placenta prævia in which the placenta is centrally placed, then there is induration in the entire circumference of the inner os; if with one of a partial kind, then we have a demonstrative proof, in that we are able to compare that part of the os internum to which the placenta is attached, with that portion to which it is not attached; the former will be found indurated and unyielding, the latter soft and elastic.

Dr. Roper does not wish to be understood as overlooking the undeveloped state of the lower part of the uterus in these cases, occurring as they mostly do before full term; and in speaking of the os or cervix uteri, he means the os or margin of the orifice of the uterus proper. A great distinction is to be drawn between the os internum, which is firm and thick, and the thin flabby cervix with its soft outer os.

The limits of Dr. Roper's paper did not permit him to dwell on the importance of this condition in reference both to the treatment of placenta prævia and its prognosis after forced delivery.

Ovarian Pain in Pregnant Women.

It is well known that, in examining pregnant women and trying to ascertain the position of the fetus by abdominal palpation, the accoucheur will sometimes hit upon a spot which is so tender that a very slight pressure is apt to produce very severe pain. Dr. BUDIN's attention having been drawn to the subject, he has studied it carefully, and has come to the following conclusions (*Progrès Médical*, March 1, 1879). The pain is limited to one particular spot, and has never, with one exception, been known to appear spontaneously, but is always caused by external pressure. On a level with the spot, a small body can be felt moving about under the exploring finger; it is of ovoid form, generally of the size of an olive, and can be moved transversely, though not up and down. If we draw an ideal line from the navel to the anterior superior iliac spine, we find this object either above or under or on the line itself. Dr. Budin thinks it the ovary. In following the back of the fetus with our finger, we easily provoke the pain and find the ovary. In other cases, it could only be felt rolling under the finger when the uterus was contracted. The contraction having once ceased, it was very difficult to find it again. The left ovary seems to be much more tender to the touch than the right one; the pain is also generally prevalent on the same side. This is

probably owing to the position of the fœtus, which lies generally with its back turned to the left and forwards. In two cases, however, where the child's back was turned to the right, the right ovary was painful. It is not yet decided whether this ovarian pain is spontaneously provoked during labour, and whether it can be produced after the ovum is expelled. It is also possible that ovarian pain has been mistaken for a peculiar form of neuralgia which has been called by several authors rheumatism of the uterus, or for the pain which is often caused by the head pressing on the uterine wall. Not one of the women in whom this phenomenon has been noticed was hysterical, so that evidently the pain could only be attributed to the compression of the ovary.—*Brit. Med. Journ.*, Sept. 27, 1879.

The Treatment of Abortion.

Dr. J. VEIT is the author of an interesting paper in the *Zeitschrift für Geburtshülfe und Gynäkologie*, Bd. iv. 163, upon the treatment of abortion. In it the views lately promulgated on that subject by Fehling in the *Archiv für Gynäkologie* are discussed and disputed. Dr. J. Veit regards the methods of interference recommended by Fehling as too active, and would recommend a more expectant treatment in the majority of cases, contenting himself with careful plugging of the vagina when there was hemorrhage of a severe kind and waiting, thus avoiding forcible dilatation, incision of the cervix, or the use of the curette. He urges strongly that in estimating the results of treatment in abortion we must not forget those inseparable from the operative measures we employ to end it. The author, however, recommends active measures to empty the uterus in such cases of delayed abortion as threaten danger to the mother from absorption of putrescent portions of the ovum or of its envelopes. An account of two such cases is given, where the author was led to hurry the expulsion of the contents of the uterus on the sudden occurrence of rigor and high fever. Temperature 105°. Both cases were successful. J. Veit endeavours to show that the menorrhagia, so frequently met with after abortion, is not necessarily due to any portion of the placenta having been retained, but to alteration in the growth of the mucous membrane dependent upon imperfect involution of the uterus. He enters his protest against the use of the sharp curette for removal of retained portions of membrane, recommended by Böter and others, as being unnecessarily dangerous.—*Edinburgh Med. Journal*, Sept. 1879.

The Causation of Sterility.

Dr. LEVY, of Munich, gives (*Bair. Ärtzl. Intell. Blatt.*, 1879, Nos. 1 and 2) the results of microscopic examinations as to the condition of the spermatozoa at different intervals after coitus, in the case of sixty women who were under treatment for sterility. In fifty-seven out of the sixty, catarrh of the uterus was present. In all these cases only a small number of spermatozoa could be detected within the uterus, and they had all become motionless at the interval of, at the outside, five hours after coitus. In healthy women, on the other hand, the author found that the movements of the spermatozoa within the uterus continued for at least twenty-six hours. Thus the important effect of an altered character of the uterine secretion, in its destructive influence upon the spermatozoa, is demonstrated. The author believes that when the secretion is healthy the spermatozoa can make their way into the uterus in spite of flexions or stenosis. He draws the inference with respect to the use of tents or mechanical dilators for the cure of sterility, that, since these measures are liable to set up uterine catarrh, anti-catarrhal remedies must afterwards be used if the dilatation is to have any effect in promoting conception.—*Obstetrical Journ. of Great Britain*, Oct. 1879.

Elephantiasis of the Labium Majus.

Dr. AXEL KEY and M. ASPLUND describe in the *Svenska läkaresällskapets förhandlingar* (quoted in *Nordiskt Medicinskt Archiv*, Band xi) a case in which the latter removed from the right labium majus of a girl aged 21 a tumour weighing about ten *kilogrammes* (twenty-two pounds). It had a pedicle nearly six inches in diameter, and reached below the patient's knee when in the recumbent position. Its growths had been very rapid. The patient had also a sort of elephantiasis of the sole of the right foot and considerable swellings on the left leg and thigh. The tumour, which was twenty inches long, was uniformly long and soft, without any hard portions. On section, it was seen to be of uniform structure throughout, with a pale whitish-gray colour and watery appearance. On pressure, a large quantity of nearly clear very gelatinous fluid escaped. Microscopic examination showed that the tumour was composed of perfectly developed connective tissue, with small lymph-spaces externally and very large ones internally. This was then a pure case of elephantiasis of the female genital organs; and Key considers the enormous swelling as a very rare specimen of the disease in these parts. It is interesting to observe that it was not alone, but that, as has already been stated, the thigh, leg, and foot were also affected.—*Brit. Med. Journ.*, Sept. 27, 1879.

Vaginismus.

M. GALLARD, in the *Annales de Gynecologie* states that he constantly recommends the gradual dilatation of the vagina by tents of progressively increasing size. According to the circumstances of the case he impregnates these tents with different applications. He also believes that these topical applications aid materially in curing vaginismus. For this purpose M. Gallard recommends the use of iodoform made up into an ointment (iodoform, 2 grams, cocoa butter, 2 grams, fresh lard, 15 grams). This preparation may be employed when there is redness or excoriation of the mucous membrane. If there is only pain without any visible change in the mucous membrane, extract of belladonna, 2 grams, fresh lard, 15 grams, may be prescribed. In this, as in the previous case, the tents may be as small as possible. After the employment of the iodoform ointment it is well to replace it after a few days, when the redness and excoriations have disappeared, by the belladonna preparation. In both cases care should be taken to increase daily, by an imperceptible but still advancing gradation, the size of the tent. By this means at no very distant period, a tent is habitually employed which is of such a size as to allow the introduction of the male organ. In effecting this result the action of the narcotic substance and the progressive dilatation have both materially assisted each other.—*Practitioner*, October, 1879, from *Journ. de Med. et Chir.*, May, 1879.

Hysterotomy for Fibrous Tumour of the Uterus.

M. TILLAUX (*Gazette Hebdomadaire*, Oct. 17, 1879) in presenting to the Académie de Médecine a patient upon whom he had performed gastrotomy and ablation of the uterus referred to the fact that, some years ago Demarquay had said before this same tribunal that hysterotomy as applied to fibromas was not a justifiable operation, and ought to be condemned. M. Tillaux said the Académie ought not to remain under the impression caused by Demarquay's words. The case which he reported proves that a large proportion can escape certain death by means of hysterotomy, or, as he proposes to call it, hysterectomy.

The conditions in which this operation should be performed, he defined to be—

1. When the woman's life is threatened by obstinate hemorrhages—these are the most common cases.

2. When the tumour causes intolerable pain, and the patients themselves demand the operation.

3. Finally, when the tumour presses upon a portion of the intestine to the point of producing intestinal occlusion—these are the rarest cases.

M. Tillaux's patient was thirty-six years old. After having spent two months at Lariboisière, and having gone from hospital to hospital, she returned to Beaujon the fifth of last March to seek an operation. She had a voluminous fibroma, which caused a constant drain, and had reduced her to the last stages of cachexia.

The tumour was rounded, partially movable, and left no doubts in regard to the diagnosis. The operation was performed 18th of April, in an isolated pavilion of the Beaujon Hospital. The incision was made on the median line. The tumour presented some adhesions, due to anterior pelvi-peritonitis, which were easily detached by the hand. The Fallopian tubes were cut, after having been tied with catgut. The tumour was then turned out of the abdominal cavity on to the mons veneris. M. Tillaux transfixed the tumour in its lower part with a needle threaded with iron wire, and thus strangulated it with a double ligature. The uterine and fibrous mass was then separated with the bistoury above the ligature. The pedicle, which was very large, was left at the lower angle of the wound. Lister's antiseptic dressing was employed. There was no accident. The needle was drawn out on the twentieth day, and the cure took place slowly, but without interruption.

In this case M. Tillaux did not judge it necessary to remove the ovaries which he had not found in his way. The tumour was submucous, and weighed about 4½ pounds. It was developed in the uterine walls on the left side.

M. Tillaux remarked that the term hysterotomy as applied to this operation is not correct. We should say hysterectomy, when complete removal of the uterus takes place, just as we say iridectomy when the iris is removed. Hysterotomy would simply mean incision, and not removal of the uterus, and could be applied to fibrous tumours when we merely remove the fibroma, leaving the organ.

M. GUÉRIN asked if the woman has continued to menstruate, and if she has had sexual relations. M. Tillaux replied that menstruation has taken place regularly during the past three months, but he knew nothing in regard to sexual relations.

At the succeeding meeting of the Académie (*ibid.*, Oct. 24, 1879) M. DUPLAY reported two cases in which he had performed hysterotomy and declared himself an earnest advocate of this operation in the treatment of fibromas or cysto-fibromas of the uterus. The first operations performed were, he said, after errors of diagnosis on the part of surgeons who thought they had ovarian tumours to deal with. Kimball appears to be the first surgeon who deliberately undertook in 1853 the removal of the uterus for a fibroma. His example was followed later, and observations on hysterotomy have increased during the past fifteen years. In France, however, this operation has been looked upon with little favour, and has not been performed with much success, except by Messrs. Kœberlé and Péan. The greatest number of operations have been performed elsewhere.

M. Duplay collected some statistics of laparotomies performed up to last year. 1. for fibromas. 2. for fibro-cystic tumours.

1. Laparotomies for fibromas—*a.* Removing the fibroma and leaving the uterus. Sub-peritoneal tumours, more or less pedunculated: 17 laparotomies, 5 cures, 12 deaths, or 70.5 per cent. mortality. *b.* Removing the entire uterus: 55 laparotomies, 23 cures, 32 deaths, or 58 per cent. mortality.

2. Laparotomies for cysto-fibromas: 41 laparotomies, 22 cures, 19 deaths, or 46.4 per cent. mortality. These partial statistics would seem to prove that hys-

terotomy is less serious for cysto-fibromas than for pure fibromas. If the partial statistics are united we find : of 113 laparotomies and hysterotomies, 50 cures, 63 deaths, or 44.2 per cent. cures and 55.7 per cent. deaths.

M. Duplay afterwards gave an account of the two operations of hysterotomy that he performed for uterine fibromas, one of which, in 1876, was at the hospital of Saint-Louis, and was followed by death, and the other on the 15th of last August, was in an insane asylum, and was followed by a cure, although M. Duplay had not thought it necessary to take the precautions taught by the advocates of the antiseptic method. In this last case the tumour was a solid uterine fibroma, and weighed 22 pounds.

An Aid to the Diagnosis of Large Ovarian Tumours.

Dr. SCHULTZE, of Jena, describes (*Centralblatt für Gynäkologie*, No. 6, 1878) a method of manipulation which he thinks will be of advantage, in addition to those generally described, in the diagnosis of ovarian tumours, and more especially in discovering the nature of their attachment, and in determining the possibility of extirpating them. He first expresses his approval of the manœuvre recommended by Hegar—namely, that the cervix should be seized by a tenaculum and drawn down by an assistant, thus putting the pedicle of the tumour on the stretch, while the bimanual examination is carried out by two fingers of one hand in the rectum and the other hand externally. For the author's special method of exploration the patient is to be placed in the dorsal position on a table, with her hips close to the end, and to be brought under deep anæsthesia. The rectum is then to be explored by two fingers, while an assistant, standing at the other side, grasps the tumour with both hands, and alternately draws it upwards and presses it downwards, causing it to glide, if possible, beneath the abdominal walls. The pedicle or attachment to the uterus is thus alternately put on the stretch, and released to the greatest degree, so that the fingers in the rectum can distinguish it with the greatest ease from any other source of resistance to pressure against the rectal walls. The author considers that the introduction of the half or whole hand into the rectum stretches its walls so much as to render more difficult the appreciation of any resistance felt through them.—*Obstetrical Journal of Great Britain*, Oct. 1879.

Medical Jurisprudence and Toxicology.

Toxic Effects of Tea.

At the late meeting of the American Neurological Association (*Journal of Nervous and Mental Diseases*, Oct. 1879), Dr. W. J. MORTON, of New York, read a paper upon this subject, which, he said, was best studied by examining that class of men, such as tea-tasters, who habitually took tea in large amounts. It was, however, not easy to obtain extensive data concerning those men, for they feared if the facts became known it might injure their business. Five cases, however, had been collected, and those, together with experiments performed by the writer upon himself, formed the basis of the paper.

The bad effects of tea-tasting were known and recognized by the tea-tasters themselves, and few could carry on the business many years without breaking down. One tea-taster estimated that he got about half-a-pound of tea into his system during a day. It has been said that the symptoms from which tea-tasters

suffered were due to alcohol or dyspepsia, but the facts collected showed the contrary.

The writer then gave the history of the cases referred to, and of the experiments upon himself.

The following is a *résumé*: First, as to the immediate effects of moderate doses, there was in the cases observed: an elevation of pulse, increase of respiration, agreeable exhilaration of mind and body, a feeling of contentment and placidity, an increase of intellectual and physical vigour, with no noticeable reaction.

The immediate effects of an excessive dose were: rapid elevation of pulse, marked increase of respiration to the extent of about one-third, increase of temperature, no period of exhilaration, but immediate and severe headache, dimness of vision, ringing in the ears, dulness and confusion of ideas. Following that was a severe reaction: exhaustion of mind and body, tremulousness and "nervousness," and dread of impending harm, that could not be relieved by taking more tea.

The effects of continued doses were a continuance of the tremulousness, extreme susceptibility to outside impressions, constipation, diminution of urine, and marked influence on the metamorphosis of tissue as shown by the diminution in the amount of urea. Thus, in the week during which the writer was taking toxic doses of tea, the amount of urine fell from f. $\text{℥}xl$ to f. $\text{℥}xxxii$ per day; and in the same time the urea fell from gr. 591 to gr. 422 per day. The sulphates, phosphates, and chlorides were increased.

The results, as regarded the diminution of urea, agreed with previous experiments, but showed the influence of the tea much more strikingly.

From the study of the drug's action, Dr. Morton arrived at the following conclusions:—

1. That with it, as with any other potent drug, there was a proper and an improper use of it.
2. That in moderation it was a mild and pleasant stimulant, followed by no harmful reaction.
3. Its continued and immoderate use led to a very serious group of symptoms, such as headache, vertigo, ringing in the ears, tremulousness, "nervousness," exhaustion of mind and body, with disinclination to mental and physical exertion, increased and irregular action of the heart, and dyspepsia.
4. The mental symptoms were not to be attributed to dyspepsia.
5. It diminished the amount of urine, and retarded the metamorphosis of tissue.
6. Many of the symptoms of immoderate tea-drinking were such as might occur without a suspicion of the real cause.

Nitrite of Amyl in Chloral Poisoning.

Dr. J. G. S. COGHILL (*Brit. Med. Journ.*, June, 1879, p. 969) was called to see a man, aged 62, who, two hours after taking a large dose (quantity uncertain) of chloral, was gasping, with four respirations a minute, kept up by artificial respiration. The surface was cold, deeply cyanosed, with the pupils contracted to the size of a pin's head. The pulse was 80, full, soft and compressible. Twenty drops of nitrite of amyl were administered by inhalation. Within two minutes warmth had returned, even to the extremities, and the surface had resumed the hue of health. In ten minutes the respirations reached nine per minute, and gradually rose to twelve. The amyl was repeated in a smaller dose, after an interval of two hours. On the following morning, at 9.30, about twelve hours after the chloral was taken, although the patient was generally much improved,

still there was no return of consciousness, but after two brandy and beef-tea enemata, he became quite sensible and spoke to those around, and swallowed food. At 6.30 P. M. the patient was improved, and continued to do so till 9 P. M., when he started up suddenly from sleep, stared around, threw up his hands, and, with a cry, fell back dead. Dr. Coghill thinks a more copious stimulation, per anum, might have warded off the fatal results due to cardiac syncope.—*London Med. Record*, Oct. 15, 1879.

Hygiene.

The Hygiene of the School Room in its Relation to Sight.

At a late meeting of the Société de Biologie (*Gazette Hebdomadaire*, Oct. 17, 1879) Dr. JAVAL, Director of the Laboratory of Ophthalmology at the Sorbonne, read an interesting paper on this subject and summarized his views in the following conclusions:—

1. It is proved that the causes of short-sightedness are habitually a prolonged application of sight during childhood combined with insufficient light.
2. In our climate illumination by diffused light never attains, even in the open air, to an injurious intensity.
3. The belief that bilateral light is injurious to the preservation of sight does not rest on any theoretical basis.
4. According to most recent statistics there are schools in which the light being bilateral, myopia is comparatively rare, and there exist others in which unilateral light is had under most favourable conditions, nevertheless myopia is as frequent as in the worst arranged schools. Experience is certainly not in favour of unilateral light.
5. Sufficient light by means of windows arranged on one side can only be obtained if the width of the room does not exceed the height of the lintels of the windows above the floor.
6. Light from behind, if it comes from above, may be usefully combined with lateral light; the light from a glazed roof is excellent.
7. Bilateral light should be preferred on all accounts. In this system, the width of the schoolroom being for the same height of windows twice as great as in the case of unilateral light, the intensity of the light in the middle of the room, which is the least benefited portion, is double that obtained by the same distance from windows where unilateral light is used. However, the width of the schoolroom must never exceed double the height of the windows.
8. Great importance must be attached to placing the school towards the east, and the axis should be directed from north-northeast, to south-southwest; a deviation of more than 40 degrees from the direction north-south should never be allowed except in exceptional climatic conditions.
9. The master should face the south.
10. Finally it is absolutely indispensable to reserve on every side of the schoolroom a strip of inalienable ground, of which the width should be double the height of the loftiest buildings that could be erected; allowing for the progress of civilization which has multiplied high storied buildings to an extent hitherto unknown in the country. *This last condition is the most important of all.*

MEDICAL NEWS.

RETROSPECTIVE AND PROSPECTIVE.

THIRTY-SEVEN years ago the "MEDICAL NEWS AND LIBRARY" was originated for the purpose of conveying to the readers of the "AMERICAN JOURNAL OF THE MEDICAL SCIENCES" a class of information for which the development of medicine seemed to call, but which did not come within the plan of the Quarterly. As the amount of this material was not as yet large, one-half of the "News" was termed the "Library Department," and was devoted to the publication of books so arranged that the sheets could be detached and bound separately by the subscriber. It is a satisfaction in looking back over this long period to reflect that through all public vicissitudes of peace and war, of prosperity and adversity, the "News" never once failed to make promptly its monthly visit, and that we have reason to believe it has been as unfailingly welcomed by its readers.

What seemed in 1843 an ample provision for the wants of the news-gatherer and news-consumer, finally, however, in the unparalleled development of medical science, proved inadequate, and in 1867 an effort was made to supply the deficiency by the republication of Ranking's "Half-Yearly Abstract" in conjunction with the "Journal" and "News." This was highly successful until the discontinuance of "Ranking" in England, in January, 1874, when its place was taken by a monthly "Supplement" to the "News," which in January, 1875, became the "Monthly Abstract."

The increasing activity of later years has rendered the slow process of supplying books at the rate of sixteen pages per month less satisfactory than of old, while it has heightened the difficulty of selecting works of interest and value to subscribers. Moreover, the ever extending attention paid to Clinical Medicine, which led, two years ago, to the introduction of a series of original American Clinical Lectures in the "News," seems to call for an enlargement in the Clinical Department of the periodical. It has, therefore, been determined to merge together the "News" and "ABSTRACT," abandoning the Library Department, paying more attention to clinics, maintaining the Monthly Abstract as an epitome of the progress of medicine thoroughly up to the wants of the time, while giving in the News Department such items of intelligence, domestic and foreign, as shall keep the reader amply informed as to all the medical movements of the day. To render this more attractive, correspondence is invited from all quarters.

The "JOURNAL" and the "NEWS AND ABSTRACT," by supplementing each other, will, as a whole, form a complete record of the advance of medical knowledge in all parts of the world, and it will be seen by reference to the publisher's prospectus how easily they are within the reach of the practitioner. That they shall be indispensable to every member of the

profession will be the ambition of all concerned, and with such a record to look back upon in the more than half-century of the "JOURNAL" and the thirty-seven years of the "NEWS," it is felt that no promises for the future are necessary, except to say that the traditions of the past will be maintained and adapted to meet the ever-growing demands of scientific and professional progress.

In our next number we shall have the pleasure of laying before our readers a valuable and suggestive Clinical Lecture by Dr. S. Weir Mitchell on Hysterical Paralysis and its Treatment.

Treatment of Infected Localities at the end of the Yellow Fever Epidemic.

The *National Board of Health Bulletin* (Nov. 1, 1879) publishes the following memorandum on this subject, prepared by Drs. S. M. BEMISS and R. W. MITCHELL, of the National Board:—

1. A fall of temperature to the freezing point renders it safe for persons to visit places which have been dangerously infected with yellow fever; but it is to be remembered that cold cannot disinfect places or things in any way protected from its action.
2. Therefore, persons who have been absent from places infected with yellow fever during the past summer should be warned of the danger of occupying houses before they have been thoroughly cleansed, ventilated, fumigated, and chilled. The doors and windows should be opened, and all parts of the house exposed when the thermometer indicates the lowest degree of temperature; in other words, between sundown and sunrise. Fires should only be lighted a few hours before occupancy.
3. The measures of cleansing, disinfection, exposure to cold and air should include, as far as possible, closets, presses, cellars, shut places of every description, and boxes or trunks.
4. Privies, dry-wells, and cisterns should be emptied and cleansed.
5. All bedding, clothing, textile fabrics of all descriptions, or other material capable of shielding the infection from cold or from the air, should be disinfected by heat, either moist or dry, or by exposure to the atmosphere at low temperature.
6. These measures should be begun as long as possible before the return of absentees or visits by unprotected persons.
7. Persons returning to places which have been dangerously infected should exercise care in purchasing bedding or ready-made clothing without being assured that it has been properly disinfected.

Philadelphia Academy of Surgery.

On the 21st of April last a number of the prominent surgeons of this city met at the house of Prof. S. D. Gross to consider the propriety of founding a surgical society. The meeting was organized by the appointment of Dr. A. Hewson as chairman, and Dr. J. Ewing Mears as secretary. At a subsequent meeting it was determined to name the society the Philadelphia Academy of Surgery, and a constitution and by-laws were adopted. The first annual election of officers will be held in January, until which time the temporary organization was continued.

By the constitution the resident fellowship is limited to thirty; the honorary American to fifteen, and honorary foreign to ten. The meetings of the Academy will be held on the first Monday of every month. The first stated meeting was held in October, and valuable papers were read by Drs. S. D. Gross, S. W. Gross, and T. G. Morton, which elicited interesting discussions.

Prize Essay of the New York County Medical Society.

The Committee on Prize Essays, consisting of Drs. Fordyce Barker, Ellsworth Eliot, and Austin Flint, recommended at a recent meeting of the New York County Medical Society that the prize be awarded to the essay "On Affections of the Ear arising from Diseases of the Teeth," which upon opening the accompanying sealed envelope was found to have been written by Dr. Samuel Sexton.

The Committee reported that "This essay seems worthy of this award, from its careful study and appreciation of the physiological relations of the organs discussed, its original suggestions, its important clinical facts, which seem to have been intelligently observed, and honestly reported, its simplicity, lucidity, and correctness in style, and its value as a contribution to practical medicine in an important class of affections, which, as bearing any relations as cause and effect, has hitherto received but slight attention from medical writers.

"If, now that the attention of the profession has been called to the association and supposed causal relations of the affections discussed in the essay, the conclusions of the author should be confirmed by the clinical studies of subsequent observers, the Society may well be congratulated on being the medium which has brought out such good work."

We are happy to state that this essay will be found in full in the January number of the *American Journal of the Medical Sciences*.

Pseudo-hypertrophic Paralysis.

A case of this rare disease was exhibited by M. DALLY at the Paris Therapeutical Society on the 8th inst. The symptoms, which coincide closely with the description given by Duchenne, were: muscular weakness beginning in the inferior extremities and the lumbo-spinal muscles, extending progressively, and finally affecting the upper extremities also; progressive increase in volume of most of the paretic muscles; hyperplasia of the interstitial connective tissue of the affected muscles, and the abundant production either of fibrous or of adipose tissue as the malady increased. According to M. Dally, only thirteen observations of this nature are on record.—*The Lancet*, Oct. 25, 1879.

The Physical Cause of Intermittent Fever.

The July number of the *Zeitschrift*, edited by Professor Klebs, contains some particulars of an investigation into the physical cause or poison to which marsh or intermittent fever is due. The inquiry was conducted by Professor Klebs of Prague, in conjunction with Signor Tommasi, Professor of Pathological Anatomy at Rome. The two investigators spent several weeks during the spring season in the Agro Romano, which is notorious for the prevalence of this particular kind of fever. They examined minutely the lower strata of the atmosphere of the district in question, as well as its soil and stagnant waters, and in the two former they discovered a microscopic fungus, consisting of numerous movable shining spores of a longish oval shape. This fungus was found to be artificially generated in various kinds of soil. The fluid matter obtained was filtrated and repeatedly washed, and the residuum left after filtration was introduced under the skin of healthy dogs. The animals experimented on all had the fever with the regular typical course. After explaining minutely the results of their various investigations and experiments, these gentlemen are of opinion that they have discovered the real cause of the disease in question. As the fungus grows into the shape of small rods, Tommasi and Klebs have given it the name of *Bacillus malarie*.—*Med. Times and Gazette*, Oct. 18, 1879.

Spontaneous Gangrene in a New-born Infant.

Dr. BIDDER related at the St. Petersburg Medical Society (*St. Petersburg. Med. Woch.*, Aug. 30) a remarkable case, in which the left foot of the fœtus presented for twelve hours, owing to the weakness of the pains, in a birth otherwise quite normal. As soon as they became stronger, delivery was easily accomplished. The foot and leg were, however, observed to be blue and œdematous, and in a few days complete gangrene was developed, with an incomplete line of demarcation above the malleoli. Superficial gangrene also affected the ends of some of the toes of the other foot. Amputation of the leg was performed on the fourteenth day. Primary union followed, and the child recovered. The cause of the gangrene was quite obscure, for no pressure of an injurious extent had been exerted by the uterus on the limb. Neither Dr. Mayerhofer, who had had under his notice 100,000 births at Vienna, nor Dr. Rauch, who perhaps has seen as many cases, ever met with a similar occurrence.—*Med. Times and Gazette*, Oct. 25, 1879.

Fatal Asphyxia occurring at Remote Periods after Anæsthesia.

In the *Gazette des Hôpitaux*, Nos. 80 and 103, an account is given of a case which occurred in Prof. Richet's practice, of a patient, who, having inhaled chloroform during amputation of the breast without any immediate ill effects, was seized on the second day after the operation with bronchitis, with suffocating breathing, which proved fatal. Four similar cases occurred in M. Richet's practice which pursued the same course, one of the features in common being their occurrence in obese persons.—*Med. Times and Gazette*, Oct. 25, 1879.

Operations of the National Board of Health.

The principal steps taken by this Board, since its organization, to promote knowledge of sanitary matters are as follows, viz. :—

a. The appointment of a commission to study yellow fever in the island of Cuba, consisting of Drs. S. E. Chaillé and Col. T. S. Hardee, C. E., of New Orleans, Dr. John Guiterás, of Phila., and Surgeon G. M. Sternberg, U. S. A.

b. The collecting and collating the sanitary laws of the several States. This work has been going on under the direction of a standing committee of the Board, of which Dr. Henry I. Bowditch is chairman.

c. An investigation as to the best method of determining the amount and character of organic matter in the air, by Prof. Ira Remsen, of the Johns Hopkins University of Baltimore.

d. An investigation as to the effects of disinfectants—and more especially of those which may be used in disinfecting an inclosed space, such as a ship or house—upon the causes of the infective diseases. At the request of the Board this has been undertaken under the general direction of the Secretary of the Massachusetts Board of Health, Dr. C. F. Folsom, by Dr. W. S. Bigelow, of Boston, assisted by Dr. H. P. Bowditch, Professor of Physiology, and Dr. E. S. Wood, Professor of Chemistry, of Harvard University.

e. An investigation as to the composition and merits of the various patent disinfectants, which has been made at the request of the Board by Prof. C. F. Chandler, of Columbia College.

f. An investigation as to the prevalence of adulterations in food or drugs in the United States, under the charge of a standing committee, of which Dr. Homer A. Johnson, of Chicago, is chairman, and reports are being prepared by Dr. R. C. Kedzie, President State Board of Health of Michigan, and Professor Diehl, of Louisville, Ky.

g. A preliminary inquiry as to the diseases of food-producing animals in the

United States, under the charge of a standing committee, of which Dr. J. L. Cabell is chairman. A report is being prepared by Prof. James Law, of Cornell University, New York.

h. An investigation into the character of the water supply of a few of the smaller towns in the Southwest in which yellow fever prevailed last year, by Dr. Charles Smart, U. S. A.

i. An investigation as to the flow of sewers, in relation to their sizes and gradients, in some of our principal cities, under the direction of Col. George E. Waring, of Newport, R. I.

k. A sanitary survey of the eastern coast of New Jersey bordering on New York Harbor, under the direction of the State Board of Health of New Jersey.

l. The collection of the opinions of the principal sanitary organizations and sanitarians of the United States as to the proper form of a national public health organization, under the direction of the executive committee of the Board, and the results will be laid before the Committee of the National Academy of Science, which has been appointed to consult with the Board on these questions.

m. An investigation as to the hygiene of the mercantile marine, and an inquiry as to the legislation or other measures which may be desirable or expedient to promote the sanitary condition of our merchant marine, by Surgeon P. H. Baillehache, of the Marine Hospital Service.

All the above-mentioned investigations are in progress, and will, it is believed, yield valuable results.—*National Board of Health Bulletin*, Oct. 25, 1879.

State Medical Society Meetings.—The annual meeting of the Iowa State Medical Society will be held at Des Moines on Wednesday, January 28th, and of the New York State Medical Society at Albany on Tuesday, Feb. 3d, 1880.

German Railway Employés and Colour-blindness.—The result of the investigation of the German Railway Department into colour-blindness is that on the State lines one employé in 125 is affected by it, and on companies' lines one in 250, but these and local discrepancies in the return imply that the test applied was not uniform.—*Med. Times and Gazette*, Oct. 18, 1879.

Literary Notes.

The Messrs. Churchill have just published a treatise "On Glaucoma," by Mr. Priestley Smith, of Birmingham; to which the Jacksonian Prize for 1878 was awarded, in April, by the Council of the Royal College of Surgeons. It forms an octavo volume of 281 pages, and is beautifully illustrated by fourteen lithographic plates, eight of which are coloured, and are from original drawings. The same house has also issued Dr. Samuel Fenwick's "Outlines of Medical Treatment" (to be reprinted by Lindsay & Blakiston), and announces Nettleship's "Student's Guide to Diseases of the Eye" (to be republished by H. C. Lea), and "Clinical Lectures on Diseases of Women," by Matthews Duncan.

Smith, Elder & Co. have published a "Manual on Skin Diseases," by Malchcolm Morris, Lecturer on Dermatology in the St. Mary's Medical School, London (reprinted by H. C. Lea), and a translation of Wecker's "Ocular Therapeutics."

H. K. Lewis has in press a monograph "On the Bile, Jaundice, and Bilious Diseases," with illustrations in chromo-lithography, by Dr. Wickham Legg, and has just published a translation of Prof. Virchow's brochure on "Infection-Diseases in the Army, chiefly Wound, Fever, Typhoid, Dysentery, and Diphtheria."

A translation from the third edition of Dr. Paul Guttman's "Handbook of Physical Diagnosis," comprising the throat, thorax, and abdomen, completes the New Sydenham Society's list for 1879, and will be reproduced in this country by Messrs. Wm. Wood & Co.

Dr. J. L. W. Thudichum, who is favourably known by his treatise on the "Pathology of the Urine," has just issued through the Longmans, the first volume of "Annals of Chemical Medicine," which embraces the application of chemistry to physiology, pathology, therapeutics, pharmacy, toxicology, and hygiene.

Messrs. Urban and Schwarzenberg, of Vienna, have issued the first fasciculus of "Real-Encyclopädie der Gesammten Heilkunde," under the editorship of Dr. Albert Eulenberg, assisted by upwards of ninety contributors, most of whom are well known by their work on this side of the Atlantic. This medico-chirurgical encyclopædia is to be completed in about ten volumes, each consisting of ten parts. The first fasciculus contains 80 pages, and extends from Aa to Ac; 32 of its pages are occupied by an excellent article, with illustrations, on typhoid fever, by W. Zuelzer, of Berlin.

Messrs. Adam and Charles Black have in press "Contributions to Obstetrics and Gynæcology," by Prof. Alex. R. Simpson of the University of Edinburgh.

Mr. H. C. Lea has just published a fourth edition of Bumstead's classical work on "Venereal Diseases." The author, with the assistance of Dr. R. W. Taylor, of New York, has revised and in great part rewritten the book, so that it may be fairly regarded as a new work rather than a new edition. It is estimated to contain one-half more reading matter than its predecessor. The same house have also issued the first volume of Reynolds's "System of Medicine," with notes and additions by Dr. Henry Hartshorne, and the remaining two volumes are promised in rapid succession. A third edition of Playfair's Midwifery, revised by the author especially for this country, and a new edition of Bowman's Medical Chemistry, which has long been out of print, remodelled and rewritten by Dr. Greene, Demonstrator of Chemistry in the University of Pennsylvania, are promised shortly. The long-expected and elaborate system of Anatomy, by Prof. Harrison Allen, of the University of Pennsylvania, we learn is now so far advanced that its appearance may be soon expected.

D. Appleton & Co. have recently published Dr. B. W. Richardson's "Ministry of Health," and have in press a "Practice of Medicine," by Dr. Roberts Bartholow, and a new and enlarged edition of Dr. Van Buren's monograph on "Diseases of the Rectum."

G. P. Putnam's Sons announce "The Essentials of Anatomy," by Drs. William Darling and A. L. Ranney.

The editorial staff of the *American Journal of Otolgoy* will be increased by the addition of Prof. A. Graham Bell, the distinguished inventor of the Bell telephone.

J. P. Morton & Co., of Louisville, have published in handsome form Prof. Gross's eloquent Memorial Oration at the Dedication of the McDowell Monument, last May. It forms an octavo volume of 77 pages, and has for its frontispiece a steel engraving of the "Father of Ovariectomy."

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OBITUARY RECORD.—At Paris, in the latter part of October, M. ALPHONSE DEVERGIE, aged 81 years.

M. Devergie was born in 1798, received his diploma in 1823, and became an Agrégé in 1825. In a few years he was appointed to the St. Louis Hospital, where he acquired his great reputation as a dermatologist. In 1874 he was elected President of the Academy of Medicine. For many years he enjoyed a great reputation as a medical expert, in which capacity he was a brilliant rival of Orfila and Tardieu. His best known works are his "Traité de Médecine Légale," which has passed through three editions, and his "Traité des Maladies de la Peau," which was originally published in 1854.

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